



VIVAX
METROTECH

Catalogue 2024 EU

Utility Locators & Inspection Cameras



- Utility Locating
- Mapping of Buried Utilities
- Sondes and Camera Locating
- Marker Locating
- Fault Finding Sheat to Earth
- Locating of Non-Metallic Services
- Ferrous Metal Detection
- Inspection of Pipes and Ducts



About us

For more than 40 years, Vivax Metrotech has been a leading developer and manufacturer of intelligent systems for effective and efficient pipe and object location as well as push cameras for video inspection of pipes. The company's headquarters are in Santa Clara, California, in the heart of Silicon Valley. More than 240 employees worldwide in the departments of research & development, design, production, sales, and service are pursuing the common goal of making customers' work easier with innovative solutions. The company has independent sites in North and South America, Asia, Europe, and the UK. In 2018, the sales and service centre in Germany was opened in Schesslitz.

Vivax-Metrotech has been known for decades for its innovative solutions, which are characterised by their particularly user-friendly operation and reliable measurement results. The products include multifunctional utility locators for cables, pipes, sondes or markers as well as combined utility locating and mapping systems with high-precision RTK-GNSS for surveying tasks. The portfolio is complemented by ferromagnetic metal detectors, special devices for locating non-metallic pipes, fault finding on cables and on cathodically protected pipes and various push camera systems for video inspection of pipes and ducts.

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Content

Theory of line location.....	4
Trainings & Seminars.....	6
Locators.....	7
vScan Series.....	8
Accessories vScan.....	9
vLoc3 Series.....	10
The intuitive vLoc3 locating modes.....	11
vLoc3 Plugin Accessories with automatic recognition for more functionality.....	13
Signal Direction and Signal Select function for reliable target line identification ...	13
vLoc3-ML Marker Locator.....	14
vLoc3-Cam 3D Sonde Locator.....	15
vLoc3 RTK-Pro.....	16
Accessories vLoc3 Series.....	18
VMap-Cloud.....	19
Loc3 Tx Transmitters.....	20
Accessories Transmitters.....	21
Transmitter Signal Clamps Loc3 Tx.....	22
vLoc3-DM.....	24
VM Series.....	26
VM-880.....	27
Locatable Sondes.....	28
Traceable Pushrods.....	30
Ball Marker and Disk Marker.....	32
Bags and Hard Cases.....	33
vCam Inspection Cameras.....	35
vCamDrain.....	36
vCamMX-2+.....	38
vCam-6.....	40
Accessories vCam.....	42
Accessories Guide Skids.....	44
Camera Head Exchange.....	45
Warranty.....	46
Locations.....	47

Theory of line location

The detection and determination of the position of buried cables or pipelines without excavating the underground.

The most common type of damage in excavation work is still cable and pipe damages with continuously rising costs for damage repair. Most damage occurs primarily as a result of missing or incorrect utility information. There are no standardised regulations on the quality of the line data and the accuracy of the position information in the documents provided by the utility companies. Therefore, it is impossible to know for sure whether the lines are actually in the specified location. The maps are often old and newly laid lines, e.g. for natural gas or photovoltaic systems, are not listed. Environmental influences and construction work can also result in huge differences in height and lines can lie shallower or deeper than indicated on the plan. This is where utility locating comes into play.

Utility locating basics

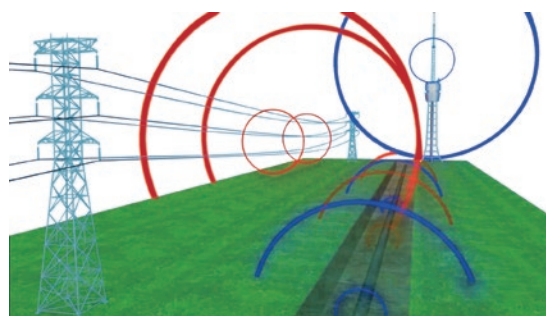
The alternating electromagnetic field that forms around almost every metallic cable or line is the starting point for the line location technology. This is based on the transmitter-receiver principle. There are two basic variants, the passive locating and the active locating.

Passive locating



Passive locating means that existing signals on the line are detected. These can be **power signals (50/60Hz)** or **radio waves**. These sources generate alternating electromagnetic fields around cables and pipes.

The objects to be located must be long, metallic, and grounded on both sides, otherwise the signal is unable to circulate. Power cables generate a 50/60 Hz signal and use surrounding cables and pipes as return conductors. Radio signals between 15 and 23 kHz are emitted by long-wave transmitters and are also coupled to surrounding cables and lines.



Active locating

With active locating, a signal is induced onto the cable by an audio frequency generator (transmitter). The cable, its route and depth can thus be precisely determined. If the buried cable to be located is difficult or impossible to access or is already live, there are various connection options for applying the signal to the line.



To apply the signal with **contactless induction**, the transmitter is placed on the ground in the vicinity of the target object. The transmitter induces a contactless signal on the cable or line.



Galvanic connection is used when the line to be located is easily accessible. The connection to the cable is established using the connecting cable and the red terminal, while the black terminal provides the corresponding ground connection to a stake or other grounded metal object.



The advantage of the **transmitter clamp connection** is that the line can remain in operation during locating. No direct contact with the conductors is required and a high level of safety can be maintained. The transmitter clamp is simply placed around the cable or pipe.



TERRAIN SWEEPING

Terrain sweeping is done before excavation work to avoid damage to the underground utilities



LINE TRACING

During tracing, the exact route of a cable or pipeline is identified and documented in order to complete plans and facilitate future maintenance of the network.

Terrain Sweeping

A basic difference is made according to the degree of accuracy and the data to be collected. The vScan cable locator was specially developed to prevent cable damage prior to excavation work. This system is extremely easy to use and locates both passively and actively. In addition to the position of the cable, line, or sonde, it also determines its depth. The robust vScan system is ideal for use by construction companies.

Detection of metallic objects

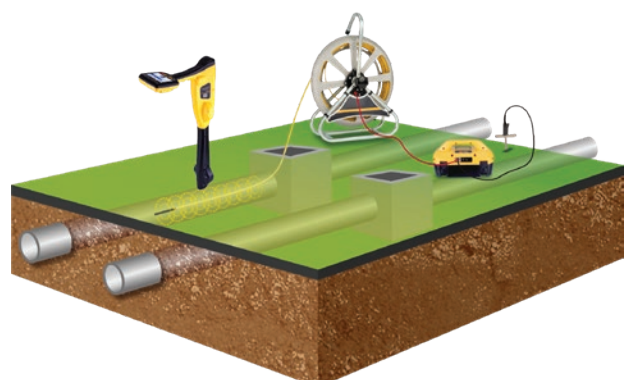
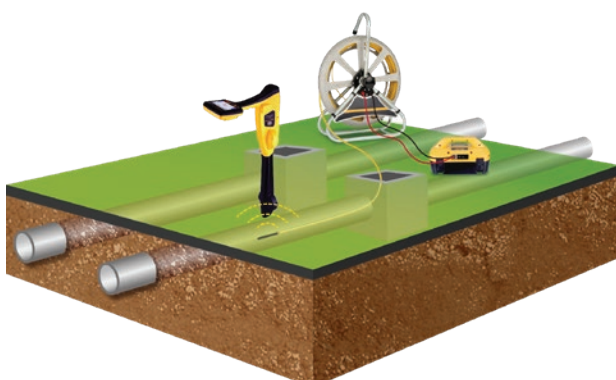
If hydrants, gate valves or other ferrous and magnetic objects cannot be found, ferromagnetic metal detectors are used. The vScan is the only device in its class to offer the option of a metal detection function. Alternatively, you can opt for the VM-880 metal detector, which has been specially developed for this application.

Line Tracing

Tracing is the exact location, surveying and documentation of underground supply and disposal utilities. Underground utilities are often used by different companies with a wide variety of cables and lines. Due to the evolved structures, precise identification is not always possible. With the intelligent Vivax-Metrotech utility locating technology, exact tracing becomes an easy task. The unique technological solutions and the design focussing on maximum user-friendliness make the multifunctional vLoc3 series stand out from other devices on the market and make it so unique. Special locator systems make it possible to detect sheat to earth faults on cathodic protected pipes and cables or to locate EMS ball markers and disk markers. Plastic pipes made of PVC, PE and GRP are used in drinking water, wastewater, gas, and fibre optic networks. In order to be able to locate these non-metallic lines easily over long distances, battery-free antennas, so-called markers, are buried when the lines are laid. These can later be easily localised with the help of a marker locator receiver and provide a precise indication of the route of the line.

Locating of non-metallic / non-conductive lines

Plastic, ceramic and other non-metallic pipes cannot be directly located. If no marker has been installed with the cable, a sonde (mini transmitter) must be inserted here for pinpoint locating. This battery-operated mini transmitter emits a defined frequency. It can be inserted in various ways, e.g. via pushrods (available as accessories), inspection cameras or by injection with compressed air. Pushrods with integrated copper wires are used to trace the route. The wire is connected with a transmitter sending a signal along the entire pushrod cable. The signal is then located from above the surface using a locator to trace the route.



Trainings & Seminars

In order to be able to locate lines professionally, fast and accurately with the Vivax-Metrotech locator systems, we recommend that every user attends a training.

Our sales team will be happy to visit you and carry out device instructions or in-house trainings tailored to your application.

Feel free to contact our sales team for on-site training and special requests for in-house seminars.



Basic knowledge

- ▶ Theory of line locating
- ▶ Application possibilities



Benefits in practice

- ▶ Procedure for different localisation methods
- ▶ Tracing of different utilities (power cables, fibre optic cables, pipelines, etc.)
- ▶ Cable identification and fault location options



Exchange of experience

- ▶ Learn from and with others
- ▶ Insights into other methods
- ▶ Expanding perspectives



Locators

Utility Locating

Sondes and Camera Locating

Marker Locating

Fault Finding



vScan Series

Durable cable locators for damage prevention before excavation work and for simple line tracing

- Cable and sonde locating
- Metal detection function (vScanM)
- Simple 2-button operation
- Depth measurement at the touch of a button
- Self-test / calibration check
- Compass direction indicator
- Optional with Bluetooth





The rugged vScan series is designed to make terrain sweeping faster, safer, and easier. The device helps the user to locate buried cables and pipes before excavation during underground construction work, thereby reducing the risk of personal injury and network damage. The receiver locates both, cables in operation and disconnected cables as well as pipes and sondes. The simple 2-button operation in combination with the bright backlit display, the compass direction indicator and the 4 GB data memory make the vScan a valuable problem solver. With the optional Bluetooth function, the recorded data can be saved in real time in the VMMMap cloud and reviewed online. The vScan works with 32.8kHz and 131kHz as active locating frequencies in combination with the optional transmitter, power 50Hz and radio as passive locating frequencies, as well as 512Hz, 640Hz and 32.8kHz for sonde locating. The vScan uses warning tones and vibration alarm to warn of shallow cables, signal overload, overhead lines, and excessive swinging. The receiver can be individually configured and only a short training is required for operation.

As a special feature, the vScanM is the only device of its class to offer ferromagnetic metal detection.

This function can be used to locate buried manhole covers, valve caps, marking pins and other buried metal parts. The vScan is the locating device for civil engineering and road construction companies, local municipalities, building yards, road maintenance depots and landscaping companies.




vScan Rx Receiver

Order code	Description
1.207.01.00032	vScan Rx Standard , Receiver supplied with alkaline batteries, and USB cable
1.207.01.00025	vScan Rx B , Receiver with Bluetooth, alkaline batteries, and USB cable 
1.207.01.00024	vScan Rx M , Receiver with metal detection mode, alkaline batteries, and USB cable 
1.207.01.00026	vScan Rx MB , Receiver with Metal detection mode, Bluetooth, alkaline batteries, and USB cable  



Accessories vScan Rx Receiver

Order code	Description
2.204.01.00051	12V DC power lead , vScan Receiver Rx
2.207.01.00091	Li-Ion battery Rx , vScan Receiver 
2.204.01.00060	Charger Li-Ion battery Rx , vScan Receiver
4.02.000097	Carry bag vScan Rx , Receiver only




Accessories vScan



The handy vScan Tx transmitter is available as accessory and enables active locating of metallic cables in combination with the vScan receiver. The transmitter provides sufficient power for most applications and offers various signal frequencies. The signal is applied via direct connection, signal clamp or induction mode. The vScan Tx transmitter comes with a connection lead kit, alkaline batteries and a carrying bag for both vScan transmitter and receiver.



vScan Tx Transmitter & Accessories

Order code	Description
1.207.02.00005	vScan Tx Transmitter , 1 Watt, induction frequency 32.8kHz, direct connection 32.8kHz and 131kHz simultaneously, clamp mode 32.8kHz and 131kHz. Including alkaline batteries, connection leads, ground stake, transmitter stand and carry bag with strap
2.207.02.00007	Li-Ion battery Tx , vScan Transmitter 
2.204.01.00060	Charger Li-Ion battery Tx , vScan Transmitter
VH03-XLRM3P	Direct connection lead XLR , with retractable banana plugs (MC4) and crocodile connectors



Transmitter Clamps for vScan Series

Order code	Description
1.200.03.00011	Transmitter Clamp 50mm XLR , 4m cable
1.200.03.00012	Transmitter Clamp 100mm XLR , 4m cable
1.200.03.00004	Transmitter Clamp 125mm XLR , 4m cable



vLoc3 Series

Smart utility locator systems featuring the latest technology for cable, sonde, marker, and fault locating, pinpointing and line tracing

- Multifunctional, modular locator systems
- Simple operation and reliable results
- User guidance with left/right arrows, compass indicator for line orientation
- Colour-coded distortion indication
- Innovative Vector mode (3D offset locating)
- Permanent depth and signal current indication
- Data management via app & cloud

The vLoc3 series utility locating systems offer you the latest technology for locating buried cables and facilities. They impress with their simple operation as well as accurate and reliable measurement results. The goal is to make the work of the user noticeably easier. To achieve this, Vivax-Metrotech develops smart devices and software solutions focussing on ergonomics and user-friendliness. Localise buried cables and pipes, non-metallic cables, sondes, markers, faults in insulation and coating accurately with the vLoc3 series receivers. The vLoc3 series will help to prevent unnecessary costs due to cable damage and excavation errors. Reliably determine the position, depth and target line, track their route and record GPS coordinates for mapping.

Sunlight-readable colour display with sensor-controlled automatic backlight

Module slot for function upgrades

Easy and clear, intuitive operation

Adjustable display warning notifications, acoustic alerts plus vibration alarm

Ergonomic working

- Handy and lightweight (only 2,1 kg)
- High impact ABS plastic housing
- Protected against dust and water (IP65)
- Dimensions 321 x 124 x 676mm

Powered by Li-Ion battery or six alkaline batteries (AA)

Data logged in device storage and in the VMMaP-Cloud

- 50 Million record internal storage
- Logged data: current, depth, frequency, gain, signal strength, mode, GPS coordinates, date, and time
- Configuration and data download using the free MyLocator desktop app
- Bluetooth connectivity (optional) with smartphone or tablet for GPS
- Data management via the VMMaP mobile app and VMMaP cloud

Two shielded triaxial antenna arrays with total six antennas enable different locating modes and better measurement results

- Antenna modus Peak, Peak with Arrows, Broad Peak for deep-routed lines, , Null, Delta Null and the special Omni Directional Peak for 3D locating (independent of the receiver orientation, e.g. for open field locating)
- Magnetic field distortion detection with colour-coded indication
- Compass indicator for line orientation



Accessory A-Frame antenna for fault locating



Clip-on and plugin marker locator adapter

Upgradable functions with plugin accessories

- Hand-held remote antenna is used to identify a cable in a cable tray, where cables are bunched together (with Signal Direction or Signal Select)
- A-Frame antenna for fault finding on cables and coatings
- Marker locator adapter (base with additional marker antenna)
- Charger Li-Ion battery (230V or 12V)



Remote antenna to identify cables in cable bundles



More locating accuracy through advanced technology

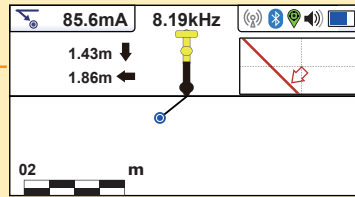
The triaxial antennas of the vLoc3 series detect distortion with every measurement. The degree of interference is shown in three colour levels on the display and is also stored. The antenna operating modes can be changed by the user at the touch of a button depending on the task at hand. This function makes it possible to determine the exact cable position and depth even in difficult conditions by comparing different measurements for verification. In addition to the familiar classic locating mode with bar graph and compass, there are new locating modes optimised for the specific application. Transverse Plot, Plan View, 3D Sonde Mode with arrow guidance and the innovative Vector Mode for offset locating make it much easier for the operator to interpret the measurement results and thus increase locating accuracy. The modes are selected by pressing just one button on the receiver.

vLoc3 Series

The intuitive vLoc3 locating modes for maximum usability

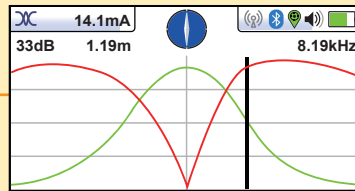
Classic Mode Screen

- Classic signal strength bar graph with peak signal indicator
- Colour-coded distortion indication in the bar graph
- Proportional left-right arrow guidance to the position of the target line
- Compass indicator of line orientation
- Signal direction arrow to identify the target line
- Continuous indication of signal current and depth



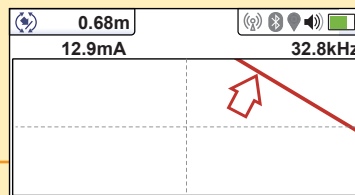
Vector Screen (Offset locating)

- Enables offset locating in case of obstacles or if the user cannot locate directly above the target line (3D locating, independent of receiver orientation)
- Continuous indication of line depth, signal current and offset distance
- Automatic gain control



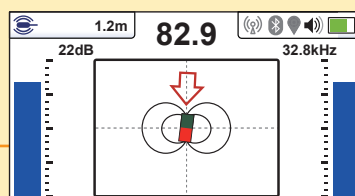
Transverse Plot Screen

- Simultaneous visualisation of the transversal peak and null signal
- Shows the signal distortion in real time and enables precise assessment of the localisation results
- Automatic gain control
- Compass indicator of line orientation



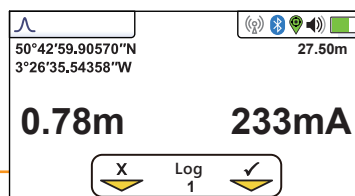
Plan View Screen

- Indicates the orientation of the cable (bird view from above on the cable)
- 3D locating, independent of receiver orientation
- Automatic gain control



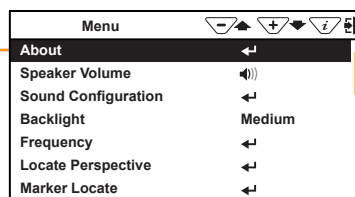
3D Sonde Screen

- 360° arrow guidance, independent of the receiver orientation
- A clear sonde symbol is displayed above the located sonde
- Automatic depth indication
- The pre- and post-signals (ghost signals) of the sonde are also displayed as different symbols to avoid wrong determination



Info & Data Log Screen

The following parameters are logged for each position: depth, current, date, time, locating mode, gain, frequency, locating deviations, as well as longitude, latitude and altitude above sea level when paired via Bluetooth with a smartphone or external GPS device



Individually configurable menus

The system menus can be customised for the user and for faster operation:

- Frequency selection
- Locating modes and screens
- Data transfer and much more



Acoustic alarms and notifications

in the event of signal overload, interference from overhead lines, excessive swinging of the receiver and shallow cables



vLoc3 Series

The vLoc3 series offers many advantages such as several optimised operating modes to match different applications, signal current indication, colour-coded distortion indication, the compass direction indicator with arrow guidance, real-time warnings as well as a large frequency selection plus various passive locating modes for power and radio frequencies. The devices are supplied with a rechargeable Li-Ion battery, charger, carry bag and alkaline battery holder (without batteries). Some models come with additional Signal Direction (SD) and Signal Select (SiS) functionality for reliable identification of the desired target line e.g. in a cable bundle.

vLoc3-Pro Utility Locator

Order code	Description
1.219.01.00010	vLoc3-Pro Receiver, frequencies: 98Hz to 200kHz (configurable), passive power (50/60Hz) & radio (10kHz-22.7kHz), SD-EUR 320/640Hz; locating modes: classic, vector, transverse plot, plan view, 3D sonde, marker (with vLoc3-MLA), fault finding (with A-Frame)
1.227.01.00017	vLoc3-Pro XLF Receiver optimised for extra low frequencies for locating over particularly long distances, frequencies: 16Hz to 32.8kHz (configurable), passive power (50/60Hz) & radio (10kHz-22.7kHz), SD-EUR 320/640Hz; locating modes: classic, vector, transverse plot, plan view, 3D sonde, marker (with vLoc3-MLA), fault finding (with A-Frame)



More information about the vLoc3 locating modes on page 11

vLoc3-9800 Utility Locator

The updated version of the classic locator, with new functions based on the proven locating modes for more user-friendly operation.

Order code	Description
1.221.01.00010	vLoc3-9800 Receiver, frequencies: 98Hz to 131kHz (configurable), passive power (50/60Hz) & radio (10kHz-22.7kHz); locating modes: classic, left/right arrows, sonde, marker (with vLoc3-MLA), fault finding (with A-Frame)



vLoc3-5000 Utility Locator + Bluetooth + GPS + SiS

The vLoc3-5000 provides the most comprehensive range of features, including integrated Bluetooth and GPS for mapping. The Signal Direction (SD) and Signal Select (SiS) function provide additional locating accuracy. Both functions indicate the signal current direction and enhance the reliable cable identification in difficult environments and conditions.

Order code	Description
1.224.01.00005	vLoc3-5000 Receiver, Bluetooth, GPS, frequencies: 98Hz to 200kHz, passive power (50/60Hz) & radio (10kHz-22.7kHz), SD-EUR 320/640Hz, SiS 491Hz/982Hz/8.44kHz/9.82kHz; locating modes: classic, vector, transverse plot, plan view, 3D sonde, marker with vLoc3-MLA, fault finding with A-Frame



In addition to the locating modes of the vLoc3 series (page 11), the vLoc3-5000 offers a further locating screen with the tried-and-tested curtain visualisation of the signal strength. Depending on their preferences, users can choose their favourite screen mode.



vLoc3 Plugin Accessories with automatic recognition for more functionality

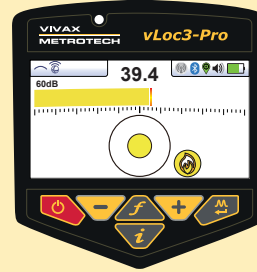


Marker locating

with the attachable Marker Locator Adapter

The MLA is a stand for the receiver with an integrated marker locating antenna. The MLA enables easy and precise localisation of buried passive EMS markers.

When you plug it in, the vLoc3 receiver automatically switches to marker locating mode.



Marker locating screen with depth indication with the press of a button



Dual marker and line locating screen

vLoc3 Series



Signal Direction and Signal Select function for reliable target line identification



The Signal Direction or Signal Select function can be used to determine the flow direction of the signal current through a cable.

The target line can be reliably identified in a cable bundle or cable tray. The identification of the target line is carried out using the receiver or with the accessories remote antenna or receiver clamp (accessories page 18).

If a locating signal is applied to a target line via a transmitter, the signal travels along this line and finds its way back via the ground and the ground stake. In the process the signal can jump to nearby cables, pipes or other metallic conductors and be returned back through them. As a result, several signals from different metallic conductors can be located, making it difficult to identify the desired target line. These return signals usually run in the opposite direction to the applied signal. The SD and SiS functions differentiate between the outgoing and returning signal flow by showing arrows (SD) or + and - symbols (SiS) on the receiver display.

Signal Direction and Signal Select providing different frequencies for locating on short and long lines and can also be used in combination with the Live Plug Connector LPC 230V and Live Cable Connector LCC 480V filters (please see page 21). Signal Select also offers a distortion indication. The user can see on the receiver display when the electromagnetic field is shifted and the signal direction indication deteriorates.



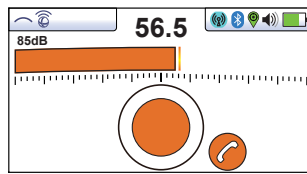
vLoc3-ML Marker Locator

The vLoc3-ML is designed for marker locating. The locator comes with a fully integrated additional marker antenna. It combines the advanced vLoc3 utility locating technology and the detection of buried markers in one handy unit. The vLoc3-ML precisely and reliably measures the depth of passive EMS markers and indicates the measured values at a glance in specially designed locating modes.

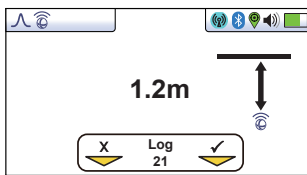
- Designed for professional marker locating
- Advanced vLoc3 locating technology
- Triaxial antennas for 3D locating (lines & sondes)
- Color-coded distortion indication
- Optional Bluetooth and GPS functionality
- Cloud data management
- Plugin accessory for fault finding



Dual marker and line locating mode screen
with circular indicator for marker signal strength and marker type symbol as well as compass and bar graph indicator for line locating



Marker locating mode
The selected marker type (colour, symbol) is displayed and the bar graph with the signal strength of the marker





Depth measurement screen
By pressing a button, the depth to the marker is shown and the values are logged



Accessory external GPS module for data logging and mapping

vLoc3-ML Marker Locator

Order code	Description
1.220.01.00003	<p>vLoc3-ML Marker and utility locator receiver, frequencies: 98Hz to 200kHz (configurable), passive power (50/60Hz) & radio (10kHz-22.7kHz), SD-EUR 320/640Hz; marker frequencies; locating modes: marker, dual marker & line locating, classic, vector, transverse plot, plan view, 3D sonde, fault finding (with A-Frame)</p> <p> </p>

More information about the vLoc3 locating modes on page 11
For available ball and disk markers please see page 32



vLoc3-Cam 3D Sonde Locator

The vLoc3-Cam is the most user-friendly way to accurately locate sondes, camera heads or to trace the route of a pushrod cable. The 3D sonde mode with the 360° guidance arrow leads the user directly to the sonde from any direction, regardless of the orientation of the locator. The screen shows the pre- and post-signal separately to avoid confusion. A distinct sonde symbol and the depth to the sonde are indicated when reaching the locating target. The vLoc3-Cam is compatible with all common sondes, video inspection push cameras and crawler systems. The line locating mode can be used to locate power, coaxial or telecommunication cables. The vLoc3-Cam is available as 32.8kHz or 83.1kHz variant for active locating of cables or tracing the push rod in combination with a transmitter.

- Sonde and line locating
- 3D sonde mode for maximum usability
- Color display with clear symbols
- Arrow guidance for high accuracy
- Permanently depth readings
- Optional Bluetooth connectivity
- Cloud data management

vLoc3 Series



Pinpointing (3D sonde mode)
Precisely determine the position and depth of sondes with pinpointing. The sonde can be installed on a camera head, crawler, or pushrod.

Tracing mode
If the deployed pushrod (from a camera or reel) is actively applied with a 32.8kHz or 83.1kHz signal by a transmitter, the entire length of the pushrod can be traced. The line locating mode indicates the bar graph showing the peak signal over the pushrod, the depth the cable orientation via the compass indicator.



3D sonde mode
The simplified operation and the distinctive symbols of the sonde's peak and null signals make it very easy for the user to locate the accurate sonde position. The omnidirectional antenna array allows to approach from any direction. The 360° arrow guides the user directly on top of the sonde's location.

vLoc3-Cam Sonde Locator

vLoc3-Cam, Receiver, frequencies: sonde 512Hz, 640Hz, 8.19kHz, 9.82kHz, 32.8kHz, 83.1kHz, passive power (50/60Hz) & radio (10kHz-22.7kHz). Active frequencies with transmitter 32.8kHz or 83.1kHz (pushrod tracing); locating modes: 3D sonde, classic tracing; comes with alkaline batteries

Order code	Description
1.225.01.00003	vLoc3-Cam Receiver, 83.1kHz (active)
1.225.01.00005	vLoc3-Cam Receiver, 32.8kHz (active)

The vLoc3-Cam is compatible with the Loc3 Tx transmitters (page 21) as well as with the vScan Tx (32.8kHz, 1 Watt, page 9) and VM-550FF Tx (83.1kHz, 1 Watt, page 26).

Recommended Accessories vLoc3-Cam

Order code	Description
2.207.01.00091	Li-Ion battery Rx , Receiver
2.219.01.00041	Charger Li-Ion battery Rx , Receiver
4.02.000097	Carry bag vLoc3 Rx , Receiver only



vLoc3 RTK-Pro

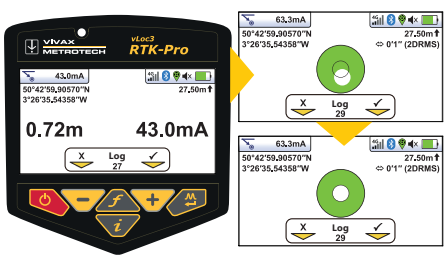
The industry's first combined utility locating and surveying system with fully integrated RTK-GNSS and patented tilt compensation for high-precision geographic data logging.

- Multi-purpose Utility Locating + Mapping
- Survey grade accuracy for mapping purposes
- Fully integrated RTK-GNSS module
- No additional devices required
- Time and cost saving
- Data storage at the touch of a button
- Cloud-based data management

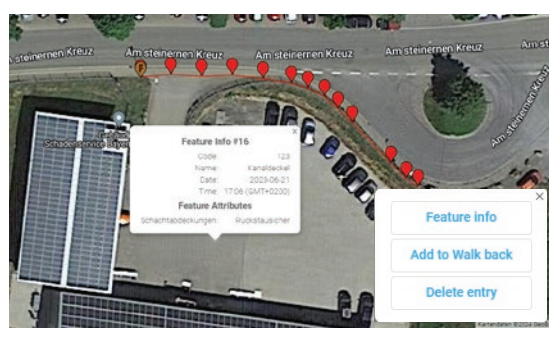
The vLoc3 RTK-Pro is the first utility locating system with a fully integrated RTK-GNSS module for surveying tasks. The smart combination of utility locating and surveying features makes object logging and mapping for plans extremely easy and comfortable in a single operation. No additional devices are required.

Based on the vLoc3 utility locating technology and its advantages, a completely new type of device has been created that makes the job for the operator in the field much easier.

Using its 4G LTE cellular module, the vLoc3 RTK-Pro connects to an NTRIP caster, which returns RTCM 3 correction data to align the simultaneously received GNSS satellite signals. The vLoc3 RTK-Pro uses this data to calculate the geographical position with centimetre accuracy using real-time kinematic. The geographical coordinates and line location data is logged and displayed on maps in the VMMMap cloud via real-time connection. Customised object lists and attributes facilitate data mapping during capture and further processing. The vLoc3 RTK-Pro is designed for all operator levels. It is fully configurable and offers outstanding usability. The operator is capturing position by simply pressing a button and align the receiver for maximum accuracy using the patented tilt compensation to save the coordinates without deviation. All data captured is sent automatically to the VMMMap cloud as well as saved to the receiver's internal storage for review and export to geographic information systems (GIS) or other asset management software.



In addition to the locating modes of the vLoc3 series (page 11), the vLoc3 RTK-Pro offers special screens for geographical data logging and tilt compensation as well as for the attribute selection and walk back function.



In the default map viewer of the VMMMap cloud, you can check the geographical position and view or delete the captured object data. Add walk back points or export the captured data in common file formats for further processing (GIS).


Walk Back feature

The innovative Walk Back feature guides the operator back to the captured geographical coordinates with high accuracy. Perform further measurements with ease at the same point or capture additional objects in the line to update digital plans and documents.




vLoc3 RTK-Pro Utility Locating + Mapping

The vLoc3 RTK-Pro receiver offers a wide range of frequencies, various passive locating modes for power and radio frequencies as well as Signal Direction (SD) and Signal Select (SiS) functionality for reliable identification of the target line e.g. in a cable bundle. The receiver is supplied with a Li-Ion battery pack, charger, special carry bag and alkaline battery holder (without batteries).

Order code	Description
1.226.01.00031	<p>vLoc3 RTK-Pro Receiver, Bluetooth, RTK-GNSS, 4G-LTE, frequencies: 98Hz to 200kHz (configurable), passive power (50/60Hz) & radio (10kHz-22.7kHz), SD-EUR 320/640Hz, SiS 491Hz/982Hz/8.44kHz/9.82kHz; locating modes: classic, vector, transverse plot, plan view, 3D sonde, marker (with vLoc3-MLA), fault finding (with A-Frame), Walk Back Screen</p> 



Recommend Accessories vLoc3 RTK-Pro



Order code	Description
1.219.02.00063	<p>Loc3-10Tx SiS, Transmitter 10 Watts, SPO, Li-Ion battery, charger, SD, SiS, direct connection lead and ground stake</p> 
2.222.02.00011	Backpack Loc3-Tx Transmitter
New 1.219.09.00001	<p>Low Frequency Transmitter Clamp 125mm SiS/SD SPO, cable 4m, frequencies 491Hz,512Hz, 640Hz, 982Hz, 4.1kHz, 8.19kHz, 8.44kHz, 9.82kHz, SiS* (491Hz, 982Hz, 8.44kHz, 9.82kHz), SD (220/440Hz, 280/560Hz, 285/570Hz, 380/760Hz, 460/920Hz, 256/512Hz, 320/640Hz, 680/340Hz, 800/400Hz, 920/460Hz, 968/484Hz, 1168/584Hz, 1248/624Hz, 4096/8192Hz)</p>
1.222.03.00001	Transmitter Clamp 100mm SPO , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)
1.222.04.00001	Transmitter Clamp 125mm SPO , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)
1.219.08.00001	Transmitter Clamp 230mm SPO , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)
2.219.01.00074	Tall Adapter & Base vLoc3 , attachable, improved ergonomics for tall users (+7cm), makes the receiver stand on the floor
1.220.02.00003	Marker Locator Adapter vLoc3 , attachable, base, and additional marker locating antenna for buried markers, automatic detection on the vLoc3
New 2.226.01.00030	Carry Bag vLoc3 RTK-Pro Kit , for receiver and transmitter (vLoc3 RTK-Pro, Loc3 Tx)
1.226.02.00002	Receiver Extension Rod XL vLoc3 , extendable, increases the overall height of the receiver by 91cm



* SiS only in combination with the transmitters Loc3-10Tx SiS and Loc3-25Tx SiS
Further transmitters and additional accessories can be found on the following pages

Accessories vLoc3 Series

vLoc3 Rx Receiver

Order code	Description	vLoc3-Pro / XLF vLoc3 RTK-Pro	vLoc3-5000	vLoc3-9800	vLoc3-Cam	vLoc3-ML	
2.219.01.00074	Tall Adapter & Base vLoc3, attachable to the receiver (+7cm). Makes the receiver stand on the floor	✓	✓	✓	✓	✗	
1.220.02.00003	MLA Marker Locator Adapter vLoc3, base with additional marker antenna for easy & accurate location of buried markers, automatic recognition	✓	✓	✓	✗	✗	
New 1.219.03.00001	Remote Antenna Rx with Signal Select (SiS) and Signal Direction (SD) for accurate cable identification, attachable to receiver	✓	✓	✓	✗	✓	
1.204.08.00001	Extension Rod 75cm , for remote antenna Rx and signal clamps						
P01120301	Receiver Clamp C100DA , Ø 50mm, with connection lead for receiver	✓	✓	✗	✗	✓	
3.01.19.000183	External GPS Module , Garmin GLO	✓	✗	✓	✗	✓	
2.219.01.00071	Holder External GPS Module , for vLoc3 receiver	✓	✗	✓	✗	✓	
2.219.01.00036	Bluetooth Module Rx vLoc3	✓	✓	✓	✓	✓	
SD Upgrade	Option SD Upgrade Receiver / Transmitter (14 SD frequencies: 220/440Hz, 280/560Hz, 285/570Hz, 380/760Hz, 460/920Hz, 256/512Hz, 320/640Hz, 680/340Hz, 800/400Hz, 920/460Hz, 968/484Hz, 1168/584Hz, 1248/624Hz, 4096/8192Hz)	✓	✓	✗	✗	✓	
1.219.04.00001	A-Frame Fault Finding Antenna , detects ground faults on pipes (coating faults) and cables (sheat to earth faults). When the A-Frame is plugged into the vLoc3 receiver, the receiver automatically switches to fault finding mode. Supplied with carry bag	✓	✓	✓	✗	✓	
2.219.01.00035	12V DC Charger Rx , only for receiver	✓	✓	✓	✓	✓	
2.219.01.00041	Charger Li-Ion battery Rx , only for receiver	✓	✓	✓	✓	✓	
2.207.01.00091	Li-Ion battery Rx , for receiver 	✓	✓	✓	✓	✓	
New 1.226.02.00001	Receiver Extension Rod L , increases the overall height of the receiver by 30cm	✓	✓	✗	✗	✗	
New 1.226.02.00002	Receiver Extension Rod XL , extendable, increases the overall height by 91cm	✓	✓	✗	✗	✗	

- ✓ Option/accessory is available for the specified receivers
- ✗ Option/accessory is not available for the specified receivers
- ✓ Included as standard with the receiver

VMap-Cloud

VMap is a cloud-based application for data management with a web portal and the option to export the data. The cloud data can be further processed into maps and directories using Google Maps, Apple Maps, GIS, and other asset management software.



With the free VMap app for mobile devices and the vLoc3 receivers, you can reliably capture and log location data on site. The data is available in real time in the VMap cloud for further processing, e.g. for your colleagues. Data on depth measurements, GPS coordinates, the distance between measuring points and much more is logged. Check the captured data in the map view of the VMap app or in the VMap web portal. The camera function of the VMap app allows the user to attach JPEG images to the measurement. Or use the app to send the data immediately as .kml or .csv files. The data are compatible with Google Maps, Apple Maps, GIS programmes and other asset management software. The position data is retrieved from your mobile phone, GPS module or an external GPS device of your choice.

- Connection via Bluetooth from the vLoc3 receivers to the app
- VMap app displays the logged data on a map with coloured pins
- Export data as .xlsx, .csv, .kml, .shp, .txt, .tsv, .dxf file
- Compatible with Google Maps, Apple Maps, and other GIS software
- App compatible with iOS and Android devices
- Data can be retrieved via customised API
- Data is transferred to and from the cloud using secure data transmission which ensures data integrity and only allows access to authorised persons
- Access to the cloud is tiered, which allows the users different access rights

Loc3 Tx Transmitters

The Loc3 Tx audio frequency generators have selectable direct connection frequencies from 32Hz to 200kHz, induction frequencies from 8kHz to 200kHz and transmitter clamp frequencies from 4.1kHz to 200kHz. Additional cable fault finding and multi-frequency modes (up to 3 frequencies simultaneously) are also included. The built-in multimeter (V/A/Ω) enables real resistance measurement up to 1 megohm. The backlit LCD display shows output current, connection type, voltage, resistance, frequency, volume, battery status and high voltage warnings. Some models have additional features such as special Signal Direction (SD) or Signal Select (SiS) which is used in combination with the locator for identifying the relevant target line. The connection on the line can be made direct (galvanic), inductive or via signal clamp. The Loc3 Tx transmitters are supplied with a rechargeable Li-Ion battery which provides 2x longer operating time compared to alkaline batteries and more than 500 charging cycles, charger, connection cable and ground stake.

Loc3 Tx Series SPO Li-Ion

Transmitter with multimeter function, frequencies: 32Hz-200kHz (direct), 8kHz-200kHz (inductive), 4.1kHz-200kHz (clamp), multi-frequency mode, fault finding, SD* (SD-USA 256/512Hz, SD-EUR 320/640Hz, SD 4096/8192Hz)



Order code	Description
1.219.05.00034	Loc3-5Tx SPO , Transmitter 5 watts
1.219.02.00059	Loc3-10Tx SPO , Transmitter 10 watts

Transmitter SiS with multimeter function, frequencies: 98Hz-200kHz (direct), 8kHz-200kHz (inductive), 4.1kHz-200kHz (clamp), multi-frequency mode, fault finding, SD* (SD-USA 256/512Hz, SD-EUR 320/640Hz, SD 4096/8192Hz), SiS** (491Hz, 982Hz, 8.44kHz, 9.82kHz)



1.219.02.00063	Loc3-10Tx SiS SPO , Transmitter 10 watts
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Loc3-25Tx SiS SPO Li-Ion

The powerful 25-watt transmitter (max. 4 ampere output current and 130-volt output voltage) is designed to transmit the signal to deeply installed lines and over long distances. The special low frequencies for fault finding ensure minimal signal distortion and enable the detection of insulation and coating faults in cables, coated pipes and cathodically protected gas pipelines. The connection is made directly or via a signal clamp (no induction function). It comes with rechargeable Li-Ion battery pack, charger, connection cable, ground stake and carry bag.

Order code	Description
1.222.02.00003	Loc3-25Tx SiS SPO, Transmitter 25 watts, multimeter, frequencies direct: 20Hz-9.82kHz, 3Hz/98Hz, 3Hz/128Hz, 4Hz/98Hz, 4Hz/128Hz, ELF1 3Hz/6Hz/98Hz, ELF2 3Hz/6Hz/128Hz, ELF3 4Hz/8Hz/98Hz, ELF4 4Hz/8Hz/128Hz, 3Hz/6Hz/512Hz, 3Hz/6Hz/640Hz, 4Hz/8Hz/512Hz, 4Hz/8Hz/640Hz, frequencies signal clamp: 8kHz-9.82kHz, SD* (SD-USA 256/512Hz, SD-EUR 320/640Hz, SD 4096/8192Hz), SiS** (491Hz, 982Hz, 8.44kHz, 9.82kHz)




*Optional upgrade with 14 SD frequencies available

**SiS frequencies can only be used in combination with the receivers vLoc3-5000 or vLoc3 RTK-Pro



Accessories Transmitters



Loc3 Tx Series (with XLR or speakON® connectors)

Order code	Description	Loc3-5Tx	Loc3-10Tx Loc3-10Tx SiS	Loc3-25Tx
2.219.02.00028	Alkaline Battery Tray Loc3 Tx , without batteries, for Loc3 Tx 5 watts and 10 watts	✓	✓	✓
3.01.17.000027	12V DC Power Lead Loc3 Tx	✓	✓	✓
2.219.02.00024	Li-Ion Battery Pack Loc3 Tx , rechargeable 	✓	✓	✓
2.110.01.000022	Charger Li-Ion Battery and Power Supply Loc3 Tx	✓	✓	✓
2.219.02.00011	Carry Bag Loc3 Tx , for the transmitter only, with additional space for connection cables, ground stake and other tools. All transmitter connections and buttons can be operated without taking the transmitter out the bag. Includes adjustable shoulder strap	✓	✓	✓
2.222.02.00011	Backpack Loc3 Tx , for transmitter and accessories, with side loop fitting the vLoc3 receiver, padded version	✓	✓	✓

Loc3 Tx SPO (speakON® connectors)

2.222.02.00007	Standard Direct Connection Lead SPO , with standard clips, cable winder tool (without ground stake)	✓	✓	✓
2.219.02.00090	Heavy Duty Direct Connection Lead SPO , for connecting the transmitter to larger pipe diameters, to valve rods, hydrants, and transformer boxes, for the gas and water industry, with cable winder tool (without ground stake)	✓	✓	✓
3.02.01.000980	Ground Stake	✓	✓	✓
2.219.02.00101	Direct Connection Lead SPO , with retractable banana plugs (4mm), crocodile connectors (without ground stake)	✓	✓	✓
OTN - 25	Magnet Ø 25mm , for ground connection to metallic parts	✓	✓	✓
2.200.04.00082	Ground Extension Lead 10m , with spool	✓	✓	✓
2.200.04.00081	Ground Extension Lead 30m , with spool	✓	✓	✓
1.204.10.00002	LCC Live Cable Connector SPO (up to 480V AC) The LCC is required for applying a locate signal on live cables up to 480V AC 60/50Hz, it operates on frequencies of 8kHz, 33kHz and SiS. The Transmitter powers the LCC. 	✓	✓	✓
1.204.07.00007	LPC Live Plug Connector SPO (up to 240V AC) The LPC separation filter is used to safely inject a locate frequency onto a live street distribution cable using a standard household mains socket from a building. This allows the cable to be traced from the premises to the connection in the street. 	✓	✓	✓
VH01-FFCEI	Accessory Kit for LPC Set of black and yellow/green cables for street lightning (2 banana connectors, crocodile clamp)	✓	✓	✓
2.219.02.00098	Adapter speakON®->XLR , SPO female to XLR male			

- ✓ This option/accessory is available for this type
- ✓ This option/accessory is standard and comes with this type

* SiS only in combination with Loc3-10Tx SiS and Loc3-25Tx SiS transmitters and vLoc3-5000 and vLoc3 RTK-Pro receivers



Loc3 Tx

Accessories Transmitters



Loc3 Tx / VM Tx with XLR connector

Order code	Description	vScan Tx	Loc3-5Tx XLR	Loc3-10Tx XLR Loc3-10Tx SiS XLR	VM-550FF Tx	VM-810 Tx
2.205.01.00018	Standard Direct Connection Lead XLR , with standard clips, cable winder tool (without ground stake)	✓	✓	✓	✓	✓
2.213.02.00013	Heavy Duty Direct Connection Lead XLR , for connecting the transmitter to larger pipe diameters, to valve rods, hydrants, and transformer boxes, for the gas and water industry, with cable winder tool (without ground stake)	✓	✓	✓	✓	✓
3.02.01.000980	Ground Stake	✓	✓	✓	✓	✓
VH03-XLRM3P	Direct Connection Lead SPO , with retractable banana plugs (4mm), crocodile connectors (without ground stake)	✓	✓	✓	✓	✓
OTN - 25	Magnet Ø 25mm , for ground connection to metallic parts	✓	✓	✓	✓	✓
2.200.04.00082	Ground Extension Lead 10m , with spool	✓	✓	✓	✓	✓
2.200.04.00081	Ground Extension Lead 30m , with spool	✓	✓	✓	✓	✓
1.204.10.00001	LCC Live Cable Connector XLR (up to 480V AC) The LCC is required for applying a locate signal on live cables up to 480V AC 60/50Hz, it operates on frequencies of 8kHz, 33kHz and SiS. The Transmitter powers the LCC.	✓	✓	✓	✓	✓
1.204.07.00003	LPC Live Plug Connector XLR (up to 240V AC) The LPC separation filter is used to safely inject a locate frequency onto a live street distribution cable using a standard household mains socket from a building. This allows the cable to be traced from the premises to the connection in the street.	✓	✓	✓	✓	✓
VH01-FFCEI	Accessory Kit for LPC Set of black and yellow/green cables for street lightning (2 banana connectors, crocodile clamp)	✓	✓	✓	✓	✓
2.219.02.00094	Adapter XLR->speakON® XLR female to SPO male					

















- ✓ This option/accessory is available for this type
- ✓ This option/accessory is standard and comes with this type

Transmitter Signal Clamps Loc3 Tx

Signal Induction Clamps

Transmitter signal clamps are used to connect the audio frequency signal of the transmitter to a target line, e.g. if direct access to the conductor is not possible or the cable concerned is in operation. Flexible clamps are used in very narrow places in electrical boxes or around large-diameter pipes. The particular advantage of the connection using transmitter clamps is that the cable can remain in operation during localisation. The transmitter clamp is simply placed around the desired cable or pipe. The induced signal enables accurate localisation. The clamps are also suitable for SiS frequencies. Signal Select (SiS) frequency modulation was developed by Vivax-Metrotech to correctly identify the target line in a cable tray or bundles. In combination with the vLoc3-5000 or vLoc3 RTK-Pro receiver and the SiS-capable Loc3 transmitters, Signal Select becomes a powerful tool for more reliable cable identification. The transmitter with the transmitter clamp induces the selected SiS frequency on the target cable.

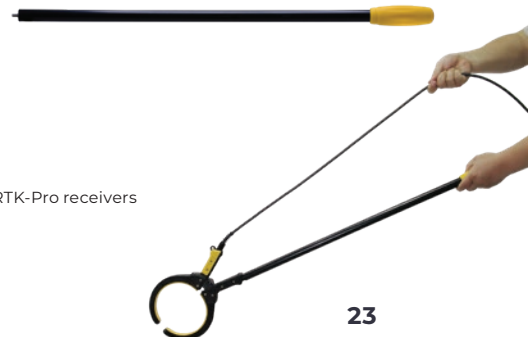
Transmitter Signal Clamps Loc3 Tx

Order code	Description	vScan	Loc3-5Tx XLR Loc3-10Tx XLR	Loc3-10Tx SIS XLR	Loc3-5Tx SPO/ Loc3-10Tx /SIS SPO Loc3-25Tx SIS SPO	VM-550FF VM-810
Transmitter Signal Clamps (XLR connector)						
 01NC9971	Flexible Transmitter Clamp 140mm XLR , cable 2m, 32.8kHz, 83.1kHz	✓	✓	✓	✗	✓
 1.200.03.00006	Flexible Transmitter Clamp 450mm XLR , cable 5m, 32.8kHz, 83.1kHz	✓	✓	✓	✗	✓
 1.200.03.00011	Transmitter Clamp 50mm XLR , cable 4m, 4.1kHz-83.1kHz	✓	✓	✓	✗	✓
 1.200.03.00012	Transmitter Clamp 100mm XLR , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)	✓	✓	✓	✗	✓
 1.200.03.00004	Transmitter Clamp 125mm XLR , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)	✓	✓	✓	✗	✓
 2.219.02.00098	Adapter speakON®->XLR SPO female to XLR male	✓	✓	✓	✗	✓
Transmitter Signal Clamps (speakON® connector)						
 01NC9971-SPO	Flexible Transmitter Clamp 140mm SPO , cable 2m, 32.8kHz, 83.1kHz	✗	✗	✗	✓	✗
 1.200.14.00001	Flexible Transmitter Clamp 450mm SPO , cable 5m, 32.8kHz, 83.1kHz	✗	✗	✗	✓	✗
 1.200.15.00001	Transmitter Clamp 50mm SPO , cable 4m, 4.1kHz-83.1kHz	✗	✗	✗	✓	✗
 1.222.03.00001	Transmitter Clamp 100mm SPO , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)	✗	✗	✗	✓	✗
 1.222.04.00001	Transmitter Clamp 125mm SPO , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)	✗	✗	✗	✓	✗
 1.219.08.00001	Transmitter Clamp 230mm SPO , cable 4m, 4.1kHz-200kHz, SD 4096/8192Hz, SiS* (8.44kHz, 9.82kHz)	✗	✗	✗	✓	✗
 1.219.09.00001	Low Frequency Transmitter Clamp 125mm SiS/SD SPO , cable 4m, frequencies 491Hz,512Hz, 640Hz, 982Hz, 4.1kHz, 8.19kHz, 8.44kHz, 9.82kHz, SiS* (491Hz, 982Hz, 8.44kHz, 9.82kHz), SD (220/440Hz, 280/560Hz, 285/570Hz, 380/760Hz, 460/920Hz, 256/512Hz, 320/640Hz, 680/340Hz, 800/400Hz, 920/460Hz, 68/484Hz, 1168/584Hz, 1248/624Hz, 4096/8192Hz)	✗	✗	✗	✓	✗
 2.219.02.00094	Adapter XLR->speakON® XLR female to SPO male	✗	✗	✗	✓	✗
Accessories Transmitter Signal Clamps						
1.204.08.00001	Clamp Extension Rod 75cm With the non-conductive extension rod, a transmitter signal clamp can be used safely on cables in trenches and manholes.					



Loc3 Tx

- ✓ This option/accessory is available for this type
 - ✓ This option/accessory is standard and comes with this type
- * SiS only in combination with Loc3-10Tx SiS and Loc3-25Tx SiS transmitters and vLoc3-5000 and vLoc3 RTK-Pro receivers



vLoc3-DM

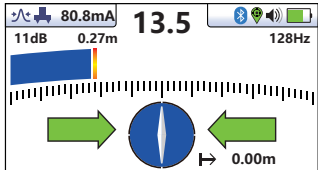
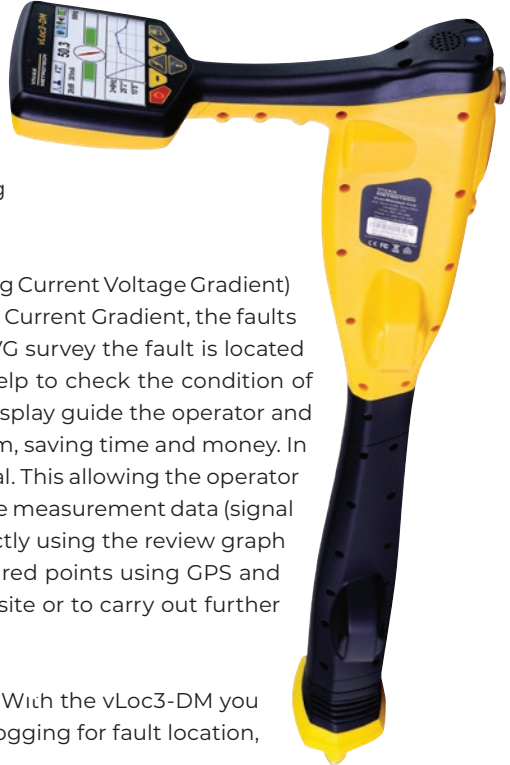
Defect Mapper System for locating coating defects on cathodic protected pipelines and cable faults (sheat to earth faults)

- Real-time On-Screen-Mapping & Analysis
- Current Gradient and ACVG surveys simultaneously
- Low frequency 3/6Hz and 4/8Hz for long distances
- Integrated Bluetooth and GPS module
- Data logging (signal current, depth, GPS coordinates etc.)
- Access data via VMMap cloud
- Walk Back feature to data points

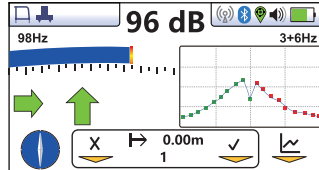
The vLoc3-DM receiver is the special device for locating and mapping isolation defects on buried pipelines with Cathodic Protection (CP) and cables. The fault location is performed using a low-frequency signal with 3/6Hz or 4/8Hz in conjunction with a powerful transmitter and is suitable for surveying buried supply pipelines in the local network as well as for very long transport pipelines. Coating defects, damaged isolation joints or shorts can quickly be detected using above-ground non-contact techniques by a single operator.

The vLoc3-DM receiver can undertake both Current Gradient and ACVG (Alternating Current Voltage Gradient) surveys one at a time or simultaneously drastically reducing the survey time. With Current Gradient, the faults can be localised to within a few metres. With the A-Frame antenna and the ACVG survey the fault is located and mapped with pinpoint accuracy down to a few centimetres. The surveys help to check the condition of coatings and to find the size and location of defects. Directional arrows on the display guide the operator and show the position of the fault. Incorrect excavations can be reduced to a minimum, saving time and money. In addition to the fault location signal, the transmitter also emits a line location signal. This allowing the operator to switch between line tracing and fault locating when inspecting the pipeline. The measurement data (signal current, depth and GPS coordinates) can be reviewed, evaluated, and saved directly using the review graph screen. If required, the Walk Back feature guides the operator back to the captured points using GPS and the vLoc3-DM colour display. This is very useful to check the measurements on site or to carry out further measurements at the same point.

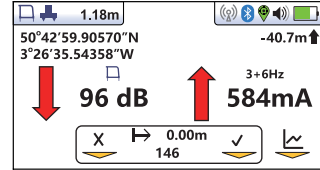
The vLoc3-DM also comes with the utility locating functions of the vLoc3 Series. With the vLoc3-DM you will get a multi-functional locating system with Bluetooth, integrated GPS data logging for fault location, tracing, mapping, and digital documentation.



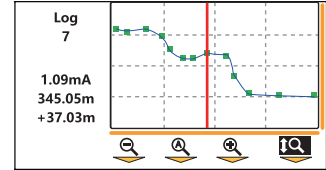
The **Classic Screen** for line locating using direction arrows, compass, and signal current. Shows the distance to the last logged data point.



DM A-Frame Screen ACVG survey including direction arrows to the fault, compass, current flow diagram and the option to log data.



DM Simultaneous Mode Allows both current attenuation and ACVG surveys to be undertaken at the same time.



Review Screen & Walk Back Shows the graph of the measured signal current, the total distance, the distance between captured points and performing the walk back.







When low frequency mapping is not required, the sensor foot with the two pins can be removed.







vLoc3-DM Defect Mapper

Fault locating, mapping and real-time evaluation system for coating defects on buried pipelines and cable isolation faults. Performing Current Gradient and ACVG surveys. Includes Bluetooth and GPS function for additional position data logging. With left/right arrow guidance, compass display of line alignment, colour-coded distortion indication and signal direction indicator. The device is supplied including Li-Ion battery pack, charger, special case, and alkaline battery holder (without batteries).



Order code	Description
1.222.01.00004	<p>vLoc3-DM Receiver, Bluetooth, GPS, frequencies: 98Hz to 200kHz, passive power & radio, SD-EUR 320/640Hz, ELF 3Hz/6Hz/98Hz, ELF 4Hz/8Hz/98Hz, 3Hz/6Hz/512Hz, 4Hz/8Hz/512Hz, 4Hz/8Hz/640Hz, 3Hz/6Hz/640Hz, locating modes: classic, A-Frame, simultaneous mode, review screen & walk back, vector, transverse plot, plan view, sonde</p> <p>     </p>

Recommended Accessories vLoc3-DM

Order code	Description
1.202.01.00002	<p>Loc-150Tx, Powerful transmitter with 150 watts for particularly long distances. For injecting a signal current to the anode bed of a pipe protection system. Power supply via the cathodic protection system (DC 26-60V), 230V or via 12-48V DC, the special low/multi-frequencies for fault location ensure minimal signal distortion and enable the detection of insulation and coating faults: 98Hz, 128Hz, 512Hz, 640Hz, 3Hz/98Hz, 3Hz/128Hz, 4Hz/98Hz, 4Hz/128Hz, ELF1 3Hz/6Hz/98Hz, ELF2 3Hz/6Hz/128Hz, ELF3 4Hz/8Hz/98Hz, ELF4 4Hz/8Hz/128Hz, 3Hz/6Hz/512Hz, 3Hz/6Hz/640Hz, 4Hz/8Hz/512Hz, 4Hz/8Hz/640Hz, backlit display for output current, frequency and voltage</p>
1.222.02.00003	<p>Loc3-25Tx SiS SPO, Transmitter 25 watts, SPO, frequencies direct: 20Hz-9.82kHz, 3Hz/98Hz, 3Hz/128Hz, 4Hz/98Hz, 4Hz/128Hz, ELF1 3Hz/6Hz/98Hz, ELF2 3Hz/6Hz/128Hz, ELF3 4Hz/8Hz/98Hz, ELF4 4Hz/8Hz/128Hz, 3Hz/6Hz/512Hz, 3Hz/6Hz/640Hz, frequencies Transmitter Clamp: 8kHz-9.82kHz, SD, SiS*, multimeter</p> <p>     </p>
1.219.04.00001	<p>A-Frame Fault Finding Antenna, detects ground faults on pipes (coating faults) and cables (sheath to earth faults). When the A-Frame is plugged into the vLoc3 receiver, the receiver automatically switches to fault finding mode. Supplied with carry bag, cable, and protection caps for the contact spikes</p>



vLoc3-DM

* SiS frequencies can only be used in combination with the receivers vLoc3-5000 or vLoc3 RTK-Pro

VM Series

Basic Locator

VM-550 Kit Cable Locator with Transmitter

The VM-550 Kit offers all the basic functions for locating live lines, short cable routes and buried pipes. With the simple push-button operation and the clear display, simple locating tasks are quickly completed. The device indicates the line depth at the touch of a button. The 1-watt transmitter has an additional 8kHz fault location frequency for use with the VM-550 FFL+ locator for sheath fault location. The transmitter is connected to the target line either directly, via signal clamp or via induction.

Order code	Description
550-G004-I-DE	VM-550 Kit , consisting of VM-550 receiver and 1-watt transmitter VM-550FF with frequencies: 83.1kHz, 640Hz, 8.192kHz, 83.1kHz, passive current, 8kFF fault finding. Including alkaline batteries, connection cable, ground stake and carry bag



VM 810 Kit Cable & Sonde Locator with Transmitter

The VM-810 is a very easy-to-use 1-frequency locator with automatic signal gain. The device can locate both cables and sondes. The operating frequency is 83.1kHz, which is universally suitable for cables, pipes, sondes as well as for inductive signal induction when no direct connection is possible. The operating modes have a left/right guidance and a compass display of the cable alignment. The depth of coverage is displayed at the touch of a button. The telescopic antenna rod can be retracted.

Order code	Description
810-E001-H	VM-810 Kit , consisting of VM-810 receiver and 1-watt transmitter with frequency 83.1kHz, including alkaline batteries, connection cable, ground stake and hard case



Line Locating Mode



Sonde Locating Mode

VM-510FFL+ Fault Finding Locator

The VM-510FFL+ was specially developed for the detection of buried cable sheath faults and pipe coating faults. An additional cable locator is not required. With the 8kFF-capable transmitter the VM-510FFL+ will also locate the position of utility lines. The operator is guided via the intuitive arrow guidance. All information can be easily read on the high-contrast display with automatic backlighting. Thanks to the robust carbon fibre housing, the device is very light, ensuring effortless operation even on long routes.

Order code	Description
1.204.09.00003	VM-510FFL+ , Fault Finding Locator, including alkaline batteries and carry bag
1.215.10.00004	VM-550FF Tx , 1-watt transmitter, frequencies: 640Hz, 8.192kHz, 83.1kHz, 8kFF fault finding, including alkaline batteries, connection cable and ground stake
2.207.02.00007	Li-ion Battery Tx , VM-550FF Transmitter
2.204.01.00060	Charger Li-ion battery Tx , VM-550FF Transmitter



VM-880

Ferromagnetic Metal Detector

The VM-880 locates buried, ferrous, and magnetic objects down to a depth of 3 metres. Time-consuming search excavations can be avoided. Typical examples are valve caps, valve rods, underground hydrants, metallic manhole and tank covers or marker nails that are covered by soil, road surface, snow, or water. Larger objects can be located at depths of up to 5 metres. Weighing just 0.7 kg, it is by far the lightest metal detector in its class. The robust ABS plastic housing offers maximum protection for the sensitive sensors. The carbon fibre antenna rod is waterproof and suitable for locating in water.

Key features include easy operation, field polarity indicator (+/-), power cable warning function (50/60Hz), signal strength indicator and one-touch sensitivity control with automatic adjustment. The field polarity indicator can be used to estimate the depth, size, and shape of the located object.

VM-880 Ferromagnetic Metal Detector

Order code	Description
1.209.01.00004	VM-880 Metal detector with field polarity indication, power cable warning 50/60Hz, one-touch auto-sensitivity, including alkaline batteries and carry bag

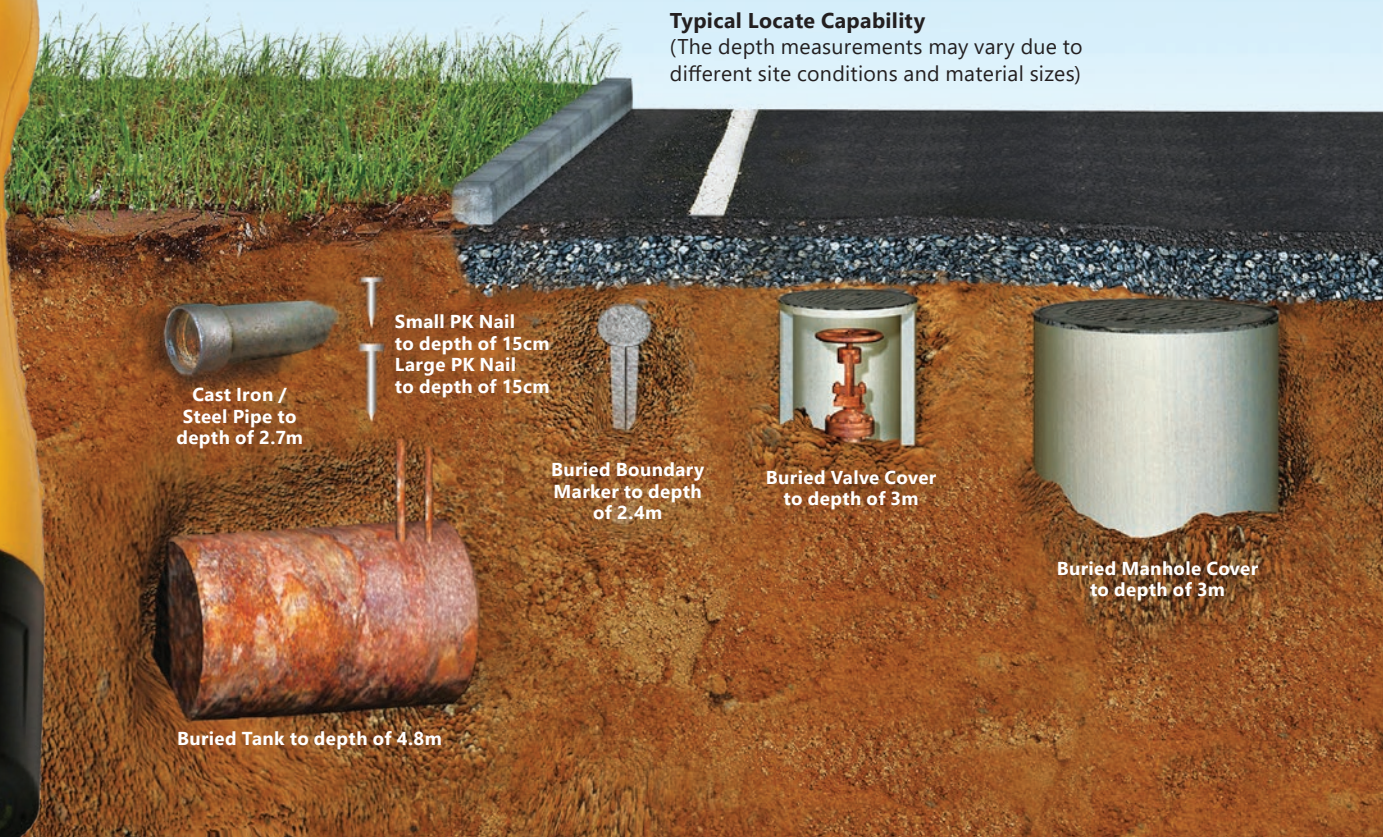


VM Series



Typical Locate Capability

(The depth measurements may vary due to different site conditions and material sizes)



Locatable Sondes

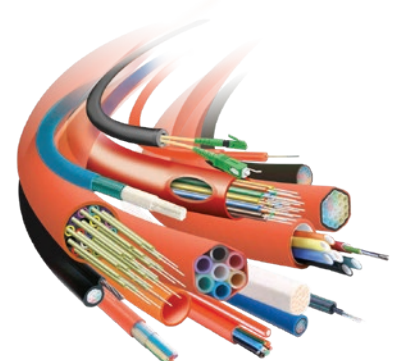
Sondes are small, battery-operated mini transmitters that emit a defined frequency. They are pushed or blown through buried non-metallic pipes and ducts and can be localised from above the surface using a sonde locator. If the sonde hits an obstacle or blockage in the pipe, it is possible to localise its position and depth very accurately. Unnecessary excavations and trenching work are effectively avoided. The sondes are available in different sizes for different pipe diameters and in different power levels for depth localisation. A selection of frequencies is available to enable locating in non-metallic lines (plastic, ceramic and concrete pipes, conduits, microducts, pipe bundles, etc.) and in some cases in metallic pipes (cast iron).

Order code	Description	vScan	vLoc Series
Micro Sonde Ø 4,6mm for blowing			
	The MPL4-33 is the smallest battery-operated active sonde for calibrating fibre optic microducts with particularly small diameters. It is designed for microduct tubes with an internal diameter of 6-8 mm and above. The MPL4-33 is flexible in the centre and can pass through bends with a radius of up to 170 mm. The micro sonde is not suitable for mounting on pushrods, only for blowing process)		
V14010	MPL4-33 Micro Sonde, 32.8kHz, Ø 4,6mm, length 94mm, locatable depth* up to 2.3m, IP67, battery life up to 9h, 2 batteries BR425, including spare battery cap, shock absorber M3.5 / Ø 4.8mm calibrator, connection M3.5 female, in plastic box	✓	✓
V14350	Spare Shock Absorber M3.5 / Ø 4.8mm calibrator , for pipe ID 6mm (80% calibration) to 8mm (60% calibration), for MPL4-33 sonde, as protection during blowing process if the sonde hits an obstacle	-	-
V14027	Battery Kit BR425 , 3.0V lithium, 10 pieces in plastic box, for sonde MPL4-33	-	-
Micro Sonde Ø 6,4mm & 9mm for pushrod			
V19010	VMS6-33 Micro Sonde, 32.8kHz, Ø 6.4mm (for pipe ID ≥8mm), length 114mm, locatable depth* up to 4.7m, IP67, battery life up to 6h, 2 batteries BR535, connection M5 female (for 3mm pushrod)	✓	✓
V14042	MPL9-33 Micro Sonde, 32.8kHz, Ø 9mm (for pipe ID ≥12mm), length 138mm, locatable depth* up to 5.7m, IP67, battery life up to 6h, 2 batteries BR535, connection M5 & M6 female (for 4.5mm pushrod)	✓	✓
V14047	Battery Kit BR535 , 3.0V lithium, 10 pieces in plastic box, for sonde VMS6-33 and MPL9-33	-	-

- *Locatable depth free air
- ✓ Accessory is suitable for this device



For modern cable installation using direct blowing, the cable ducts must be checked for deformation in advance to ensure free passage (calibration). This is the only way to prevent an interruption during the blowing-in process. A calibrator is shot through the cable conduit using compressed air. The calibrator is fitted with a sonde that can be located. If the calibrator with the sonde gets stuck in the cable conduit, this point can be precisely localised using a sonde locator. Micro sondes are designed for use with pushrods or blowing into fibre optic ducts and microduct bundles.





Order code	Description	Adapter	vScan	VM-810	vLoc Series
Sondes Ø 18mm					
2.203.05.00003	D18-33 Sonde , 32.8kHz, Ø 18mm, length 92mm, locatable depth* up to 4.5m, including 1 CR1/3N battery, M10 male	+	✓	✗	✓
V14052	PL18-33 Sonde , 32.8kHz, Ø 18mm, length 85mm, locatable depth* up to 10m, with lithium battery LS14250 3.6V, M10 male and M12 female (for 7.4mm & 11mm pushrod)	-	✓	✗	✓
V20100	Kit PL18-33 including sonde and PL18-FM flexible mounting battery compartment, M12 female, lithium battery LS14250 3.6V (for 7.4mm & 11mm pushrod)	-	✓	✗	✓
Sondes Ø 22mm					
1.203.15.00001	D22 Sonde 9.82kHz , Ø 22mm, length 104mm, including 4x LR43 batteries, locatable depth* up to 2.4m, M12 female (for 7.4mm & 11mm pushrod)	-	✗	✗	✓
1.203.16.00001	D22 Sonde 83.1kHz , Ø 22mm, length 104mm, including 4x LR43 batteries, locatable depth* up to 2.4m, M12 female (for 7.4mm & 11mm pushrod)	-	✗	✓	✓
Flexible Sondes Ø 23mm					
2.203.03.00004	D23 Flexible Sonde 512Hz , 3 sections, Ø 23mm, length 456mm, locatable depth* up to 7m, including AA battery, M10 male (suitable for cast iron pipes)	+	✗	✗	✓
2.203.04.00002	D23 Flexible Sonde 640Hz , 3 sections, Ø 23mm, length 456mm, locatable depth* up to 7m, including AA battery, M10 male (suitable for cast iron pipes, for 7.4mm & 11mm pushrod with adapter)	+	✗	✗	✓
Sondes Ø 38mm					
1.203.17.00001	D38 Sonde 32.8kHz , Ø 23mm, length 122mm, locatable depth* up to 5m, including AA battery, M10 male (for 7.4mm & 11mm pushrod with adapter)	+	✓	✗	✓
1.203.18.00001	D38 Sonde 9.82kHz , Ø 23mm, length 122mm, locatable depth* up to 5m, including AA battery, M10 male (for 7.4mm & 11mm pushrod with adapter)	+	✗	✗	✓
1.203.19.00001	D38 Sonde 83.1kHz , Ø 23mm, length 122mm, locatable depth* up to 5m, including AA battery, M10 male (for 7.4mm & 11mm pushrod with adapter)	+	✗	✓	✓
Sondes Ø 64mm					
1.203.20.00001	D64 Sonde 32.8kHz , Ø 64mm, length 180mm, locatable depth* up to 8m, including 9V battery, M10 male (for 7.4mm & 11mm pushrod with adapter)	+	✓	✗	✓
1.203.21.00001	D64 Sonde 9.82kHz , Ø 64mm, length 180mm, locatable depth* up to 8m, including 9V battery, M10 male (for 7.4mm & 11mm pushrod with adapter)	+	✗	✗	✓
1.203.22.00001	D64 Sonde 83.1kHz , Ø 64mm, length 180mm, locatable depth* up to 8m, including 9V battery, M10 male (for 7.4mm & 11mm pushrod with adapter)	+	✗	✓	✓
Adapter					
MAXCOAD/911	Adapter M12/M10 female , Ø16mm, length 41mm, for sonde D18/D23/D38/D64 and 7,4mm & 11mm pushrod				
MAXCOFLE/SA	Flexible Spring Adapter M12/M10 female , Ø16mm, length 116mm, for sonde D18/D23/D38/D64 and 7,4mm & 11mm pushrod				



*Locatable depth free air

✓ Accessory is suitable for this device

✗ Accessory is not suitable for this device

⊕ Adapter is required for mounting on pushrod cables

Traceable Pushrods

The position and route of existing lines and ducts are not always known or exactly documented. This often leads to considerable damage to cables and pipes during excavations, resulting in high repair costs. Any contractor needs to ensure that the utilities can be quickly and safely identified. Locating non-conductive lines is significantly simplified and often, for the first time, made feasible by using traceable pushrods. The pushrod reels can be used for tracing lines or for pinpoint detection in combination with a locator. For pinpointing, the pushrod head is equipped with an active sonde. Pinpointing is used to localise defects in pipe systems such as blockages, collapses, or sagging pipe sections. Line tracing in combination with a transmitter is used to follow the entire length of the pushrod. The transmitter is connected to the pushrod via the connection box using banana plugs or clamps. The locating depths and accuracies are mainly influenced by the locator device and by local conditions (structure and nature of the ground, walls or distortion from other energy sources). The pushrods are used to locate non-conductive utilities, non-metallic pipes (plastic, ceramic, concrete), conduits, sewers, water pipes or drainage pipes. Pushrods can also be a useful tool in domestic installations to localise line routes or as a cable pulling aid.

The versatile traceable pushrod reels consist of a polypropylene cable with an internal flexible fibreglass rod and conductive wires. The pushrods are extremely strong, tensile and at the same time bendable.

Order code **Description**

Traceable Mini Pushrod Ø 3mm (compatible with Micro Sonde 6mm)

With contact socket and an integrated conductive trace wire. Compatible with VMS6-33 micro sonde for pinpointing. Minimum bending radius only 30mm. Integrated storage compartment for accessories. Including 5 pulling heads with brass eyelet with M5 thread, Ø 6 mm, 1 cable pulling sock with twist compensation for cable Ø 6-9 mm, 2 starting sleeves with M5 external thread, 3 brass connecting sleeves, special adhesive, flex head Ø 7mm and Ø 10mm. Dimensions 330x270x80mm

104650-KATI **Pushrod Ø 3mm, 50m**, traceable, M5 male



Traceable Pushrods Ø 4,5mm with integrated 8mm Sonde (Tracing and Pinpointing)

Pushrods with fixed passive 8mm sonde for tracing and pinpointing. 2 contact sockets for energising the integrated trace wire with a transmitter. Aluminium reel Ø 400mm with galvanised steel frame. Minimum bending radius 200mm. Dimensions 415x185x575mm

104050-KATI **Pushrod Ø 4,5mm, 30m**, traceable, with 8mm passive sonde

104052-KATI **Pushrod Ø 4,5mm, 60m**, traceable, with 8mm passive sonde

104053-KATI **Pushrod Ø 4,5mm, 80m**, traceable, with 8mm passive sonde



Traceable Pushrods Ø 4,5mm (compatible with Micro Sondes)

Pushrods Ø 4.5 mm with integrated conductive trace wire, aluminium reel Ø 400 mm, with M5 external threaded starting sleeve and screwed-on guide head Ø 11 mm, connection box for transmitter with 2 contacts. Service bag included. Minimum bending radius 100mm. Dimensions 415x185x575mm

104085-KATI **Pushrod Ø 4,5mm, 30m**, traceable, M5 male

104087-KATI **Pushrod Ø 4,5mm, 60m**, traceable, M5 male



Accessories

SAS-INSERTION Flexible insertion gate for pushrods with sonde for pressurised water and gas pipes, for locating PE junctions, suitable for Ø 4.5 mm pushrods.



Order code Description

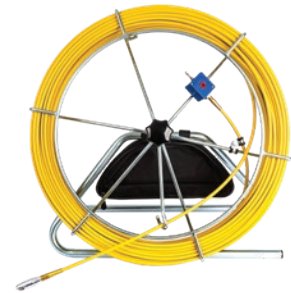
**Traceable Pushrods Ø 7,4mm
(compatible with D18, D22, D23, D38, D64 Sondes)**

The pushrods Ø 7.4 mm have a fully galvanised tubular steel construction. Thanks to the collapsible frame, it is surprisingly compact and can be easily transported in a car. An adjustable brake prevents the pushrod cable from running out of the reel automatically due to its tension. The integrated guide can be variably mounted at the top or bottom. Glued and pinned cable end sleeves with M12 threads at both ends enable work in both directions, suitable for a wide range of requirements. Includes connection box with 2 sockets for transmitting the integrated conductive trace wire and practical service bag. Minimum bending radius 190mm. Dimensions 630x230x630mm

104097-KATI **Pushrod Ø 7,4mm, 60m**, traceable, M12 male

104099-KATI **Pushrod Ø 7,4mm, 90m**, traceable, M12 male

104098-KATI **Pushrod Ø 7,4mm, 120m**, traceable, M12 male



**Traceable Pushrods Ø 11mm
(compatible with D18, D22, D23, D38, D64 Sondes)**

The Ø 11 mm pushrod has a fully galvanised, bolted tubular steel frame and can be easily moved on its wheels. A finely adjustable brake prevents the pushrod cable from running out of the reel automatically due to its inherent tension. Glued and pinned cable end sleeves with M12 threads at both ends allow work in both directions. Includes connection box with 2 sockets for transmitting the integrated conductive trace wire and service bag. Minimum bending radius 390mm. Dimensions 960x370x1010mm

104115-KATI **Pushrod Ø 11mm, 150m**, traceable, M12 male

104116-KATI **Pushrod Ø 11mm, 200m**, traceable, M12 male

104117-KATI **Pushrod Ø 11mm, 250m**, traceable, M12 male

104118-KATI **Pushrod Ø 11mm, 300m**, traceable, M12 male

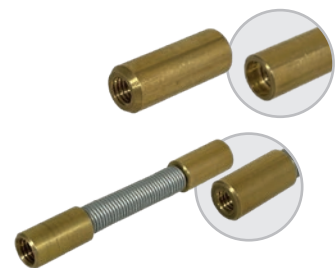


Accessories

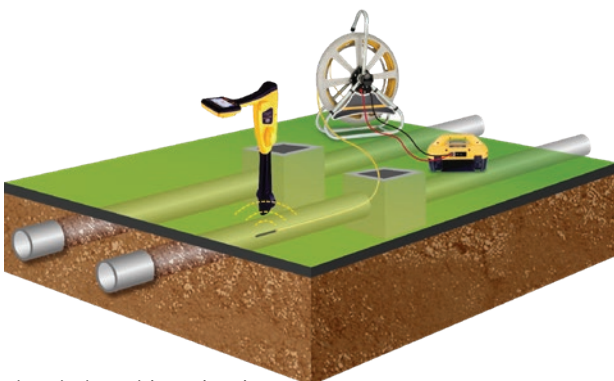
MAXCOAD/911 **Adapter M12/M10 female**, Ø16mm, length 41mm, for sonde D18/D23/D38/D64 and 7,4mm & 11mm pushrod

MAXCOFLE/SA **Flexible Spring Adapter M12/M10 female**, Ø16mm, length 116mm, for sonde D18/D23/D38/D64 and 7,4mm & 11mm pushrod

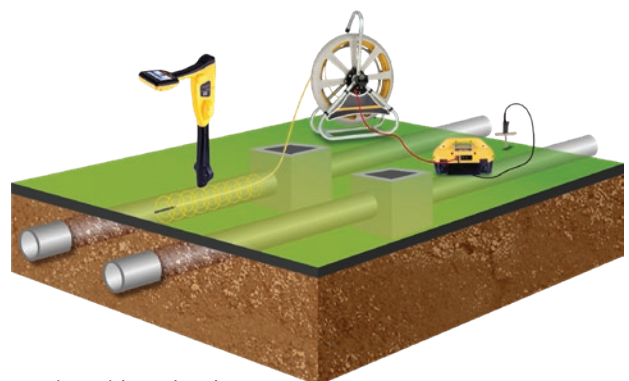
On request **Meter counter**, counts the metres reeled off



Other lengths or diameters on request











Pinpointing with pushrod, sonde, transmitter, and locator



Line tracing with pushrod, transmitter, and locator

Ball Marker and Disk Marker

Ball and disc markers offer a reliable and cost-effective way of marking buried non-metallic line structures. Their function is not affected by metallic cables, pipes, fences, or power lines. The markers are buried at the important points (e.g. house junctions, joints, etc.) when installing lines or pipes along the route. Passive markers are antennas consisting of a coil and capacitor, without an internal power supply. Using the vLoc3-ML marker locator or the MLA marker locator adapter, a signal is sent to the marker in the ground, which causes the coil to swing, allowing it to be located. Our disc markers are designed for marking cables at a maximum depth of 1.8m. The advantage of the spherical marker is the spherical magnetic field of the coil. It is not necessary to pay attention to the correct position of the marker during installation, which simplifies installation. The robust outer housing is very resistant. Two holes on the sides of the marker housing are provided for attachment to the cables.

Type	Frequency	Colour code	
CATV	77kHz	Orange-black	
Gas	83.1kHz	Yellow	
Telefon	101.4kHz	Orange	
Wastewater	121.6kHz	Green	
Power EU	134kHz	Red-blue	
Water	145.7kHz	Blue	
Power USA	169.8kHz	Red	
General purpose / reclaimed water	66.35kHz	Purple	

Order code	Description	Unit
Disk Marker		
M2500 + colour code	Disk Marker M2500 , passive, Ø 225x28mm, weight 300g, detection depth 1.8m, operating temperature -20°C to +60°C, service life 50 years, horizontal installation	30 pieces / unit
Ball Marker		
100-3D + colour code	Ball Marker 100-3D , passive, Ø 130mm, weight 210g, detection depth 1.5m, operating temperature -20°C to +60°C, service life 50 years, self-aligning	18 pieces / unit




Other options for marking buried utilities or for marking non-metallic lines are traceable warning tapes or locatable marker pins. If you are interested, we will be happy to consult you.



Bags and Hard Cases

The custom-fit carry bags and cases for the Vivax-Metrotech locators offer plenty of space and additional storage compartments for easy transport of the devices together with accessories

Order code	Description	vLoc3 RTK-Pro	vLoc3-Pro / 5000 vLoc3-Cam	vLoc3-9800	vLoc3-ML	Loc3 Tx
Carry Bags vLoc3 / Loc3						
2.220.01.00009	Carry Bag vLoc3 Kit , for receiver and transmitter, made of durable polyamide, two-sided zip, side pockets, 2 carrying handles and shoulder strap	-	✓	✓	✓	-
4.02.000097	Carry Bag vLoc3 Rx Receiver , for charger, user handbook, made of durable polyamide, two-sided zip fastener	-	✓	✗	✗	✗
2.226.01.00030	Carry Bag vLoc3 RTK-Pro Kit , for receiver and transmitter, made of durable polyamide, two-sided zip, side pockets, 2 carrying handles and shoulder strap	✓	-	-	-	-
2.219.02.00011	Carry Bag Loc3 Tx Transmitter , space for ground stake, connection leads and other tools. All connections and buttons on the transmitter can be operated from the outside without removing it from the bag. Made from durable polyamide, includes adjustable shoulder strap	-	✗	✗	✗	✓
2.222.02.00011	Backpack Loc3 Tx Transmitter , padded and adjustable shoulder straps with pockets, rubberised carrying handle, ventilated back section for more comfort. Openings facilitate access to the display, keypad, and connection sockets of the transmitter. Side accessory pocket for connection leads and ground stake, side loop for carrying the receiver, reflective safety strips					✓
Case vLoc3						
2.219.01.00072	Hard Case vLoc3 Kit , for receiver and transmitter, transmitter clamp, chargers, marker adapter, connection leads and tools you need in the field. Dimensions 780x280x-380cm	-	✓	✓	✗	✓

- ✓ Accessory is suitable for this device
- ✗ Accessory is not suitable for this device
- ✓ This accessory is standard and comes with the device



Order code	Description
Other Cases & Bags	
2.213.01.00015	Hard Case VM 810 Kit , for receiver and transmitter
4.02.000058	Carry Bag VM-880 Receiver , made of durable polyamide, with zip and carrying handles
4.02.000070	Carry Bag VM-550 Kit , for receiver and transmitter, made of durable polyamide, with zip fastener and carrying handles
4.02.000081	Carry Bag vScan Kit , for receiver and transmitter (included as standard with vScan Tx transmitter)
4.02.000097	Carry Bag vScan Rx , only for receiver and charger, made of durable polyamide, zip on both sides
4.02.000026	Carry Bag A-Frame , for A-Frame antenna and connection accessories



Inspection Camera Systems

Mini Camera Systems

Compact Camera Systems

Modular Camera Systems



vCam Inspection Cameras

Locatable push camera systems for video inspection of pipes and wastewater pipes to prevent expensive consequential damages

The vCam push cameras from Vivax-Metrotech are indispensable tools for the video inspection of pipe-work systems. The special camera systems make it possible to visualise the inside of pipes in order to identify and record damage, blockages or other problems.

Damage detection: vCam push cameras are used to check the condition of wastewater pipes, sewers, and other underground pipes. They enable a visual, non-invasive inspection without having to dig up or dismantle the pipes. With the push cameras, inspection professionals can easily identify damage such as cracks, breaks, socket misalignment, blockages, root ingrowth and other problems.

Documentation: The recorded videos and images serve as proof of the condition of the pipework and support the planning of repairs or renovation measures. Detailed reports in accordance with current standards can be created on the basis of the data.

Damage pinpointing and route tracing: Defects or blockages can be precisely located for repairs using a sonde locator. For this purpose, the vCam cameras are equipped with a sonde and 3 localisation frequencies. The vCamMX-2* and vCam6 inspection cameras can also be used to trace routes. The entire length of the pushrod cable can be energised and located. This is ideal for marking the route of the cable or for creating plans.

Flexibility: The vCam push cameras are compact and lightweight. They can be used in pipes with diameters from 40mm to 300mm. Thanks to the reel and the flexible pushrod cable, the cameras are particularly flexible and can be used in various pipelines, including house connections and in industrial areas.

Simple operation: All vCam cameras are easy to use and do not require any complex installation. They can be operated by one person.

The associated VMC app shows the video in a live stream on the tablet or smartphone, records files and enables the instant sharing of data as well as free over-the-air firmware updates. The camera's integrated WiFi module establishes the connection with mobile devices.



vCamDrain

Portable app-controlled WiFi push camera reel for inspecting pipes from Ø 40-80mm, p-traps, toilet traps and 90° bends

- Particularly lightweight and portable
- User-friendly control via app
- Video and image recording on USB and app
- Locatable sonde with 3 frequencies
- Powerful Li-ion battery or mains operation
- Live video and text input via app
- Over-the-air system update

The small and durable vCamDrain has been specially designed to inspect small diameter pipes, traps, or narrow bends. Thanks to its compact dimensions, the camera is easy to transport and can be conveniently stowed in the vehicle. Your smartphone or tablet, which connects to the vCamDrain via WiFi, serves as the monitor. There is no need to purchase additional monitors. The camera is controlled via the free VMC app (vCam Mobile Controller). It controls the illumination, the distance counter, and the integrated sonde (on/off, frequency selection). Comments and notes can be easily added to the recordings as text or voice recordings. All data is saved in the app or on USB. The sharing function makes it easy to send recorded videos and photos instantly.

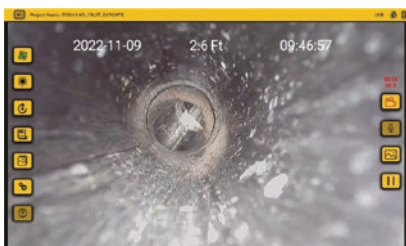
The durable 18mm stainless steel camera head with sapphire glass lens and ultra-bright LEDs produces crisp, clear HD video recordings (1080p). The flexible yet sturdy Ø 9mm pushrod cable (20m or 30m) can be used to inspect several 90° bends in a row. Both the camera head and the spring unit with built-in sonde are particularly easy to maintain and field serviceable. With the integrated Li-ion battery, operating times of up to 12 hours are possible.



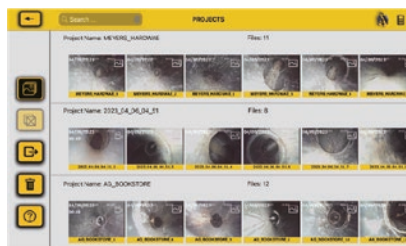
Vivax-Metrotech Camera Head Exchange

Assured in the long term even after the warranty period

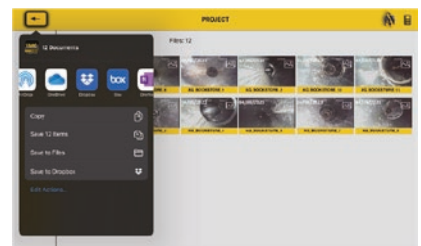
Please go to page 45 for more details



The VMC app controls all the camera reel functions



The recorded files are organized in the searchable project gallery



Instantly share files or entire projects via the VMC-App

vCamDrain with D18-HD Camera

WiFi inspection camera system with Li-ion battery, flexible pushrod cable Ø9mm and camera head D18-HD with standard guide skid. Comes with tool bag including camera tool and charger. Dimensions 350 x 250 x 420mm.

Order code	Description
VCD-70A-D18HD-EU	vCamDrain/20/D18-HD , pushrod 20m
VCD-100A-D18HD-EU	vCamDrain/30/D18-HD , pushrod 30m

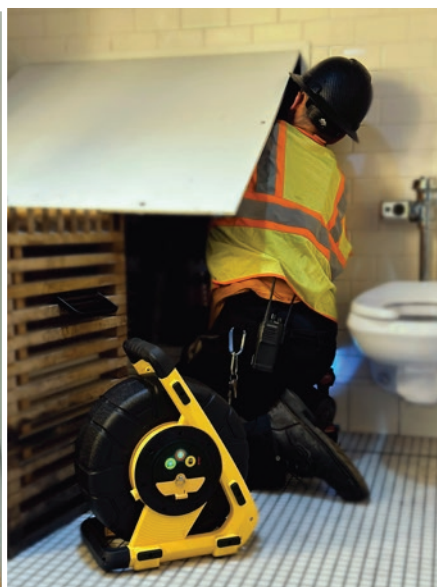


Accessories vCamDrain

Order code	Description
4.02.000189	Carry bag vCamDrain , made of durable nylon, with carrying straps and shoulder strap, side pockets and zip



Some examples of operating the vCamDrain via smartphone or tablet with various mounts. The camera can be connected to several mobile devices via WiFi.



vCamMX-2+

Compact and portable all-in-one inspection camera system for Ø 40-100mm pipes featuring WiFi and live video via VMC app

- Compact and easy to transport
- 8" colour display with on-screen keyboard
- HD video and image recording on USB and app
- 3 sonde frequencies (512Hz, 640Hz, 32.8kHz)
- Traceable pushrod cable
- Li-ion battery or mains operation
- Live video streaming and text input via WiFi & app
- Comfortable over-the-air updates

The versatile and rugged vCamMX-2+ push camera is a compact and video inspection system with excellent bend capabilities. Several 90° bends can be passed in a row without any problems. Generate sharp, clear HD images of the inside of a pipe and log the inspection with annotated video and image recordings. Choose from two push cable lengths (30m and 45m) to suit your application. The easy-to-change durable camera heads are equipped with extra bright LEDs for a more visibility. The vCamMX-2+ has also an integrated sonde with three frequencies as standard to locate the camera head with pinpoint accuracy from above the ground. In addition, the pushrod cable can be connected to a transmitter. This allows the line route to be traced precisely over the entire length. Via WiFi and the free VMC app, you can stream the camera image directly to your mobile device, conveniently add text comments or share the log files just on the go.

8" colour display with on-screen metre counter, date, and time, in a rotatable and tiltable housing for better view angle


Data storage on USB stick or SD card and app, video and image output via cinch socket and Mini-USB

Premium pushrod cable, flexible for bends and stiff enough for long distances

Pinpointing and tracing
Locatable sonde with 3 selectable frequencies for pinpointing and locatable pushrod cable for route tracing

Lightweight thanks to carbon fibre reel

Sturdy metal frame with rubber feet for horizontal use

WiFi connectivity to the VMC app for mobile devices 

Integrated microphone for recording of voice comments


Large, rugged keypad, easy to operate even with gloves

Li-ion rechargeable battery for up to 8h, optional 12V or 230V mains operation

Easy to replace spring unit for less maintenance

Interchangeable camera heads
Durable stainless-steel housing, scratch-resistant sapphire glass lens, guide skid and bright LEDs for improved sight in difficult conditions

 D26-HD (26mm) self-levelling

 D18-HD (18mm)



Vivax-Metrotech Camera Head Exchange

Assured in the long term even after the warranty period

Please go to page 45 for more details

vCamMX-2* with D18-HD Camera

Inspection camera system including control unit with Li-ion battery, MX reel with pushrod cable Ø 10mm, camera head D18-HD with standard guide skid and connection cable (reel to control unit). Supplied with a pipe insert sleeve to protect the pushrod cable from sharp edges, tool bag with camera head tool and charger for the battery and mains operation. Dimensions 580 x 380 x 700mm.

Order code	Description
VMX-100A-D18HD-EU	vCamMX-2*/30/D18-HD , pushrod 30m
VMX-150A-D18HD-EU	vCamMX-2*/45/D18-HD , pushrod 45m

vCamMX-2* with D26-HD Camera self-levelling

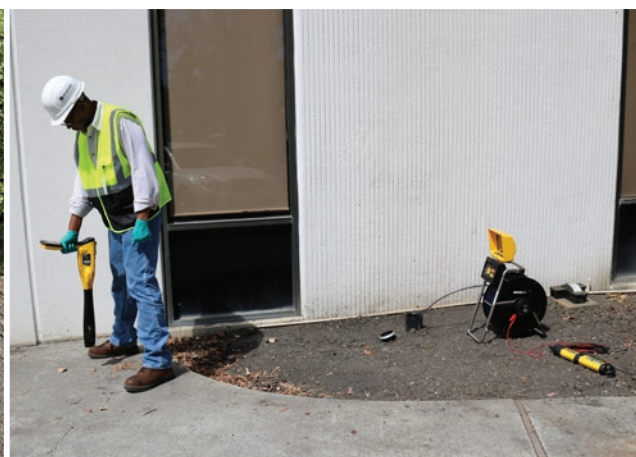
Inspection camera system including control unit with Li-ion battery, MX reel with pushrod cable Ø 10mm, camera head D26-HD (self-levelling picture) with standard guide skid and connection cable (reel to control unit). Supplied with a pipe insert sleeve to protect the pushrod cable from sharp edges, tool bag with camera head tool and charger for the battery and mains operation. Dimensions 580 x 380 x 700mm.

Order code	Description
VMX-100A-D26HD-EU	vCamMX-2*/30/D26-HD , pushrod 30m
VMX-150A-D26HD-EU	vCamMX-2*/45/D26-HD , pushrod 45m



The Perfect Team

vCam Inspection System + vLoc3-Cam Sonde Locator



vCam-6

Modular inspection camera system for pipe inspections from Ø 80-200mm and up to 120m in length featuring WiFi and live video via VMC app

- Rugged, durable, and user-friendly
- 9.7" touch display with additional keyboard
- Video and image recording in Full HD
- 3 sonde frequencies (512Hz, 640Hz, 32.8kHz)
- Traceable pushrod cable
- Li-ion battery or mains operation
- Live video and via WiFi & app
- Comfortable over-the-air updates

The vCam-6 push camera offers professional users everything they need to reliably inspect pipes and log the results. The system is built very durable and designed for daily use by sanitary companies, plumbers, pipe cleaning companies and construction companies. Create detailed videos and images in Full HD with text input, audio commentary, distance information, date, and time stamp. The system is powered by a rechargeable Li-ion battery (up to 6 hours) or 230V or 12V mains operation. The high level of usability and reliability ensure trouble-free operation. The vCam-6 control unit is detachable and compatible with the MX mini reel. This makes it the perfect companion for smaller pipe diameters or in difficult environments with limited space. The optional adjustable skid with wheels allows to **inspect pipe diameters of 200-400 mm**. With the free VMC app, you can stream the camera image directly to your mobile device, conveniently add text comments or share the files.

Detachable 9.7" touch display with on-screen metre counter, date and time (optional rotate and tilt table)

HDMI video output, VGA connection external monitor and audio output

Video/image recordings on internal 1000 GB memory, SD card or USB stick and app

Pinpointing and tracing
Locatable sonde with 3 selectable frequencies for pinpointing and locatable pushrod cable for route tracing

Durable reel made of stainless steel with wheels

WiFi connectivity to the VMC app for mobile devices

Integrated microphone for recording of voice comments

Integrated camera head test port

Full QWERTY keyboard

Easy to replace spring unit for less maintenance

Interchangeable camera heads
Durable stainless-steel housing, scratch-resistant sapphire glass lens, guide skid and bright LEDs for improved sight in difficult conditions

D34-HD (34mm) self-levelling

D46-HD (46mm) self-levelling

Accessory
Adjustable Skid with wheels and additional LEDs for 200-400mm pipes

Vivax-Metrotech Camera Head Exchange
Assured in the long term even after the warranty period

Please go to page 45 for more details

vCam-6 control module in combination with the MX mini reel as compact unit

vCam-6 (Standard termination)



Inspection camera system including control unit with Li-ion battery, CP reel with pushrod cable Ø12mm, HD camera head (D34-HD or D46-HD) with standard guide skid and 4m connection cable (reel to control unit). Supplied with tool bag, camera head tool, charger for the battery and mains operation and a flexible pipe insert sleeve to protect the pushrod cable from sharp edges. Dimensions 710 x 500 x 910mm.

Order code	Description
VC6-C200A-D34HDP-EU	vCam-6/60/D34-HD , pushrod 60m
VC6-C300A-D34HDP-EU	vCam-6/90/D34-HD , pushrod 90m
VC6-C400A-D34HDP-EU	vCam-6/120/D34-HD , pushrod 120m
VC6-C200A-D46HDP-EU	vCam-6/60/D46-HD , pushrod 60m
VC6-C300A-D46HDP-EU	vCam-6/90/D46-HD , pushrod 90m
VC6-C400A-D46HDP-EU	vCam-6/120/D46-HD , pushrod 120m



vCam-6 (Short termination)



Inspection camera system including control unit with Li-ion battery, CP reel with pushrod cable Ø 12mm, HD camera head (D34-HD or D46-HD) with standard guide skid and 4m connection cable (reel to control unit). Supplied with tool bag, camera head tool, charger for the battery and mains operation and a flexible pipe insert sleeve to protect the pushrod cable from sharp edges. Dimensions 710 x 500 x 910mm.

Order code	Description
VC6-C200B-D34HDP-EU	vCam-6/60/D34-HD/Short , pushrod 60m
VC6-C300B-D34HDP-EU	vCam-6/90/D34-HD/Short , pushrod 90m
VC6-C400B-D34HDP-EU	vCam-6/120/D34-HD/Short , pushrod 120m
VC6-C200B-D46HDP-EU	vCam-6/60/D46-HD/Short , pushrod 60m
VC6-C300B-D46HDP-EU	vCam-6/90/D46-HD/Short , pushrod 90m
VC6-C400B-D46HDP-EU	vCam-6/120/D46-HD/Short , pushrod 120m



Accessories vCam-6

Order code	Description
2.104.20.00001	Type B Adjustable Skid with wheels , for pipe Ø 200-400mm, compatible with D34* and D46 camera heads, stainless steel/aluminium construction, dimensions closed 175x273mm, fully extended 340x248mm (*D34 standard guide skid must be mounted as an adapter)
2.104.05.00003	Light-Kit , LED ring light, improves the illumination in large pipe diameters, 400 lm, battery-operated (3 x AA alkaline batteries for runtime up to 2 hours), IP68, to be attached to the front of the adjustable skid



Accessories vCam

Order code Description

Type CP Reel (standard termination)

1.109.03.00021	Type CP Reel 60m , pushrod cable Ø 12mm, 4m connection cable reel to control module, pipe insert sleeve
1.109.03.00023	Type CP Reel 90m , pushrod cable Ø 12mm, 4m connection cable reel to control module, pipe insert sleeve
1.109.03.00022	Type CP Reel 120m , pushrod cable Ø 12mm, 4m connection cable reel to control module, pipe insert sleeve



Type CP Reel (short termination)

1.109.03.00005	Type CP Reel 60m short , pushrod cable Ø 12mm, 4m connection cable reel to control module, pipe insert sleeve
1.109.03.00009	Type CP Reel 90m short , pushrod cable Ø 12mm, 4m connection cable reel to control module, pipe insert sleeve
1.109.03.00007	Type CP Reel 120m short , pushrod cable Ø 12mm, 4m connection cable reel to control module, pipe insert sleeve



MX Mini Reel

1.110.02.00006	MX Mini Reel 30m , pushrod cable Ø 10mm, pipe insert sleeve, without connection cable
1.110.02.00007	MX Mini Reel 45m , pushrod cable Ø 10mm, pipe insert sleeve, without connection cable
2.104.16.00009	Connection Cable 4m , (vCam-6 control module to reel)
2.104.01.00021	Connection Cable 8m , (vCam-6 control module to reel)



vCam Control Modules

1.111.01.00010	vCam-6 Control Module , with Li-Ion battery, tool bag, screwdriver, camera head tool, charger for battery and power supply, 12V DC mains cable, fuse, USB stick
1.112.01.00007	vCamMX-2+ Control Module , with Li-Ion battery, tool bag, screwdriver, charger for battery and power supply, 12V DC mains cable, fuse, USB stick, connection cable short version to MX mini reel



vCamMX-2+ Camera Heads

1.113.02.00001	Camera Head D18-HD , Ø 18mm, with standard skid
1.112.03.00001	Camera Head D26-HD , Ø 26mm, self-levelling, with standard skid



vCam-6 Camera Heads

1.111.05.00002	Camera Head D34-HD , Ø 34mm, self-levelling, with standard skid
1.111.03.00002	Camera Head D46-HD , Ø 46mm, self-levelling, with standard skid



Camera Heads Compatibility

The vCam-6 control module is compatible with the D18-HD, D26-HD, D34-HD, D46-HD and D18-MX, D26-MX, D34-C and D46-CP camera heads

Accessories vCam

Order code Description

Accessories vCamMX-2

4.03.000095	<p>Reel Drip Bags MX Mini Reel</p> <p>Use the durable, nylon material drip bags when entering a building, home, or other clean areas. Use the drip bags to ensure that any moisture or debris will not fall from the reels pushrod onto a clean surface.</p>
3.02.11.000002	<p>Pipe Insert Sleeve</p> <p>Made of flexible plastic to protect the pushrod cable from sharp edges when inserting the camera and pushrod into the pipe.</p>
2.110.01.000022	<p>Charger for Li-ion battery and power supply (included with vCam inspection system)</p>



Order code Description

Accessories vCam-6

3.02.10.000061	<p>Reel Drip Bag Type CP reel</p> <p>Use the durable, nylon material drip bags when entering a building, home, or other clean areas. Use the drip bags to ensure that any moisture or debris will not fall from the reels pushrod onto a clean surface.</p>
1.109.08.00001	<p>Rotate and Tilt Table (RATT) for Type CP reel</p> <p>Mounts between the Type CP reel and the vCam-6 control module. The RATT adds flexibility to position the control module to a comfortable viewing angle.</p>



Accessories Guide Skids

Order code Description

D18 Guide Skids

2.110.04.00005	D18-MX Standard Guide Skid
2.110.04.00003	D18-MX Guide Skid 57mm
2.113.02.00002	D18-HD Standard Guide Skid 26mm
2.113.02.00005	D18-HD Guide Skid 35mm for spring



D26 Guide Skids

2.112.04.00002	D26-HD Standard Guide Skid 34mm
2.110.03.00003	D26-MX Standard Guide Skid
2.110.03.00004	D26-MX / D26-HD Guide Skid 57mm
2.110.03.00005	D26-MX / D26-HD Guide Skid 76mm



D34 Guide Skids

2.111.05.00001	D34-HD Standard Guide Skid
2.111.05.00002	D34-HD Guide Skid 57mm
2.111.05.00003	D34-HD Guide Skid 76mm
2.111.05.00004	D34-HD Guide Skid 100mm
2.109.02.00004	D34-C/M Guide Skid
2.109.02.00013	D34-C/M Guide Skid 57mm
2.109.02.00014	D34-C/M Guide Skid 76mm
2.109.02.00015	D34-C/M Guide Skid 100mm



D46 Guide Skids

2.109.10.00005	D46 Standard Guide Skid
2.109.10.00006	D46 Guide Skid 76mm
2.109.10.00003	D46 Guide Skid 100mm
2.109.10.00004	D46 Guide Skid 127mm



Guide skid 57mm and 76mm for pipe Ø up to 100mm
 Guide skid 100mm and 127mm for pipe Ø up to 150mm



Camera Head Exchange

With the exclusive Vivax-Metrotech Camera Head Exchange Program you can exchange a non-functional camera head of equal size and resolution at special pricing. (i.e., old D33 for a new D34, non-HD for non-HD)

Note:

Cameras eligible for this program include cameras malfunctioning under normal usage and wear. The PRO Series, Type-S Reel, LSR Flexible Rod, and all previously repaired or abused camera heads are not eligible for the program.

To take advantage of the Exchange Program you must:

1. Place an order for the Exchange Camera Head (you will be billed the special pricing). The below prices are final (net prices), no discounts are given.
2. At the time of purchase, we will advise you with instructions for the old camera head. We always need the serial number of the camera head to start the process.



**Vivax-Metrotech
Camera Head
Exchange**

Assured in the long term even after the warranty period

Order code	Description
Exchange Camera Head vCamDrain / vCamMX-2	
1.113.02.00001-E	Exchange Camera Head D18-HD , with standard skid
1.112.03.00001-E	Exchange Camera Head D26-HD , self-levelling, with standard skid
Exchange Camera Head vCam-6	
1.111.05.00002-E	Exchange Camera Head D34-HD , self-levelling, with standard skid
1.111.03.00002-E	Exchange Camera Head D46-HD , self-levelling, with standard skid
Exchange Camera Head vCam-5	
1.109.02.00002-E	Exchange Camera Head D34-C , self-levelling, with standard skid
1.109.10.00001-E	Exchange Camera Head D46-CP , self-levelling, with standard skid



Camera Heads Compatibility

The vCam-6 Control Module is compatible and will work with the camera heads D18-HD, D26-HD, D34-HD, D46-HD, D18-MX, D26-MX, D34-C and D46-CP.

The vCam-5 Control Module will work with the camera heads D18-MX, D26-MX, D34-C and D46-CP.

Warranty

Scope	Devices
24 Month Warranty (Ex Works Date Germany)	vLoc3 Series Receivers Loc3 Tx Transmitters vScan Rx Receivers vScan Tx Transmitters VM510 FFL+ Receiver
12 Month Warranty (Ex Works Date Germany)	VM Series Receivers VM Series Transmitters Chargers Batteries Accessories Signal Clamps A-Frame Antenna Sondes Pushrods vCamDrain Inspection Camera Systems vCam6 Inspection Camera Systems vCamMX-2+ Inspections Camera Systems Type CP Reel MX Mini Reel Camera Heads

Extended Warranty on request

Prices on request ex dispatch warehouse Germany plus shipping costs.

Minimum order value 150 €.

All deliveries are made exclusively in accordance with our

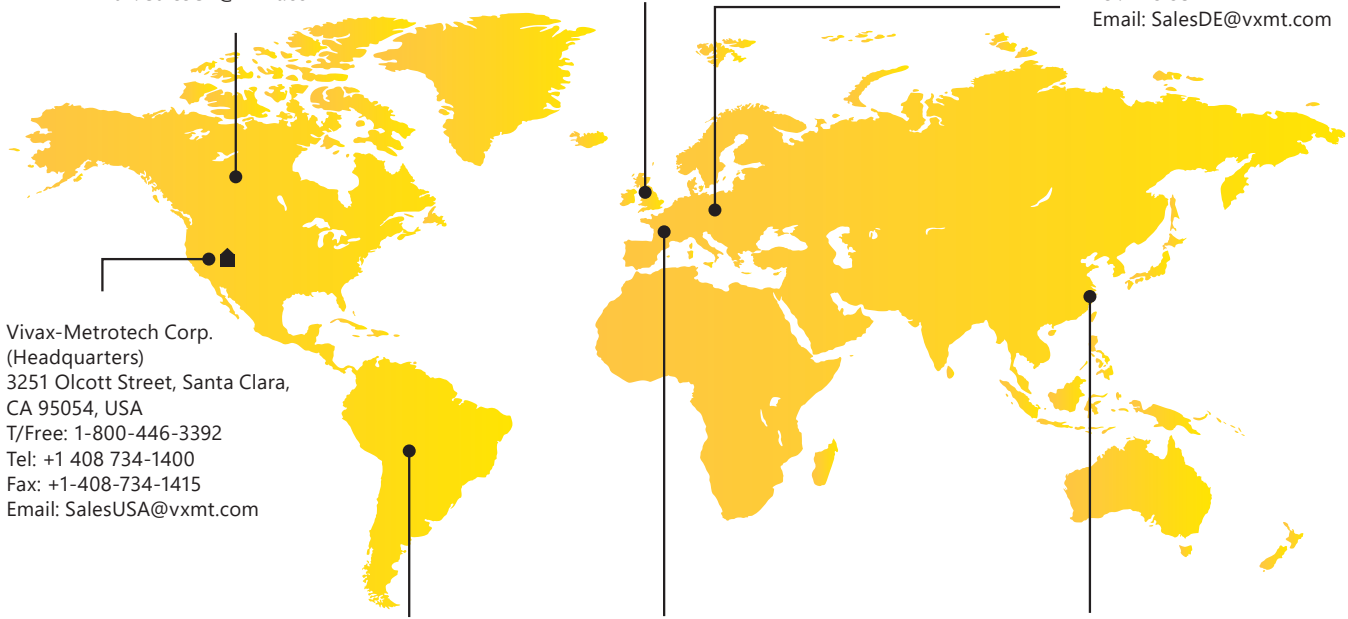
[General Terms and Conditions of Sale and Delivery.](#)

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Disclaimer: Product and accessory specifications and availability information are subject to change without notice.

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